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# THINKING OUTSIDE THE BOX: A NEGOTIATED SETTLEMENT AGREEMENT FOR THE REMEDIATION OF THE GENERAL ELECTRIC/HOUSATONIC RIVER SITE ENSURES ENVIRONMENTAL HEALTH AND ECONOMIC PROSPERITY FOR PITTSFIELD, MASSACHUSETTS

*Michaela S. Moore\**

The remediation of highly contaminated industrial sites is customarily conducted under RCRA or CERCLA. Because of a desire for less draconian measures and more expeditious cleanups, those involved with these contaminated sites began to look for alternatives to the federal programs. One such alternative, the negotiated settlement, was used at the General Electric/Housatonic River Site in Pittsfield, Massachusetts. This Comment argues that the negotiated settlement is the best alternative for implementing remediation at the General Electric site because it will ensure that the cleanup is conducted safely and efficiently and that the site can be quickly redeveloped.

## INTRODUCTION

In 1903, the General Electric Company (GE) opened its doors in Pittsfield, Massachusetts.<sup>1</sup> The main function of this operation was building transformers for utilities.<sup>2</sup> At its height, the GE plant in Pittsfield employed over 13,000 people, dominating the local economy of this western Massachusetts city.<sup>3</sup> However, foreign competition, which resulted in million-dollar losses, forced GE to shut down its

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\* Production Editor, BOSTON COLLEGE ENVIRONMENTAL AFFAIRS LAW REVIEW, 1998-1999.

<sup>1</sup> See William M. Carley, *A Lot of Anger Out There*, WALL ST. J., Dec. 4, 1997, at A1.

<sup>2</sup> See *id.*

<sup>3</sup> See Michael Cohen, *EPA Invokes Superfund to Force GE to Clean Up Pollution*, BOSTON GLOBE, Apr. 7, 1998, at B2.

transformer operations in the late 1980s.<sup>4</sup> Currently, GE maintains only a plastics division in Pittsfield, which employs about 700 people.<sup>5</sup>

Although GE has, for the most part, vacated the Pittsfield area, it has left a lasting legacy in the form of polychlorinated biphenyl (PCB) contamination.<sup>6</sup> From 1932 to 1977, GE used PCBs as insulating fluids in the manufacture of its transformers.<sup>7</sup> During this time, GE disposed of the PCB waste in accordance with the legal industry standard—on-site disposal and release into the nearby Housatonic River.<sup>8</sup>

In 1979, Congress completely banned the use of PCBs, declaring them a suspected carcinogen in humans based upon the results of a number of animal tests.<sup>9</sup> Although GE discontinued using PCBs in accordance with the law, decades of dumping this now suspected carcinogen left the plant area and the Housatonic River heavily contaminated.<sup>10</sup> In 1981, GE acknowledged its responsibility for the PCB contamination and entered into a consent agreement with state and federal regulators under the Resource Conservation and Recovery Act (RCRA) and various state laws.<sup>11</sup> Since that time, GE has spent over \$100 million to investigate and remediate contamination at its Pittsfield plant and the surrounding areas.<sup>12</sup>

The propriety of the RCRA process of remediation was questioned during the 1996 senatorial contest between incumbent Senator John F. Kerry (D-Mass.) and then-Governor of Massachusetts William F. Weld.<sup>13</sup> In their efforts to appear friendly to the environment and

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<sup>4</sup> See Carley, *supra* note 1, at A1; General Electric, *GE in Pittsfield*, (visited Jan. 20, 1998) <<http://www.ge.com/pittsfield/info.htm>> [hereinafter *GE in Pittsfield*].

<sup>5</sup> See Carley, *supra* note 1, at A1.

<sup>6</sup> See *id.*

<sup>7</sup> See *GE in Pittsfield*, *supra* note 4 (because PCBs are not flammable, their use was required in transformers by many safety and fire codes, as well as by insurance underwriters).

<sup>8</sup> See William J. Angelo, *Big Profits, Big Bills: For Three Decades General Electric Co. Has Been Cleaning Up Toxic Leftovers at Two Sites*, ENGINEERING NEWS-REC., Aug. 11, 1997, at 44; Carley, *supra* note 1, at A1.

<sup>9</sup> See 15 U.S.C. § 2605(e)(2)–(3) (1994). In 1977, Congress banned the manufacture, processing, distribution in commerce, or use of PCBs after January 1, 1978, unless such activities were carried out in a totally enclosed manner, as determined by EPA. See *id.* After July 1, 1979, Congress specified that no person could process or distribute in commerce any PCB unless EPA granted that person an exemption. See *id.*; see also MITCHELL D. ERICKSON, ANALYTICAL CHEMISTRY OF PCBs 5 (2d ed. 1997); Angelo, *supra* note 8, at 44.

<sup>10</sup> See Angelo, *supra* note 8, at 44; Carley, *supra* note 1, at A1.

<sup>11</sup> See Solid Waste Disposal Act, 42 U.S.C. §§ 6901–6987 (1994); Angelo, *supra* note 8, at 44; *GE in Pittsfield*, *supra* note 4; Trudy Tynan, *Deadly Soil Undermines Small Town's Serenity; GE Scrambles to Find, Cleanse PCB Pollution That It Spread*, DENVER POST, July 10, 1997, at A27.

<sup>12</sup> See Carley, *supra* note 1, at A1; *GE in Pittsfield*, *supra* note 4.

<sup>13</sup> See *Weld Turns Up Heat on GE River Cleanup*, BOSTON GLOBE, Sept. 24, 1996, at B10 [hereinafter *Weld Turns Up Heat*].

tough on the "big businesses" that pollute it, both Kerry and Weld focused their attention on the GE site in Pittsfield.<sup>14</sup> Because it is the one highly contaminated site in Massachusetts that is owned by the quintessential "big business" corporation, the GE site became an obvious political target.<sup>15</sup> Both Weld and Kerry called for tougher action to be taken against GE in the form of a "Superfund" designation—placing the site on the National Priorities List (NPL) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).<sup>16</sup>

The RCRA process came under fire again in the summer of 1997, when many Pittsfield residents discovered that their yards were contaminated with PCBs by yard fill that GE gave to employees and the city of Pittsfield free of charge during the 1940s and 1950s.<sup>17</sup> Adding insult to injury, information surfaced that a retired GE engineer had warned the company about the fill problems as early as 1981.<sup>18</sup> Upon discovering that their property, their school yards, and their playgrounds were contaminated with PCBs and that this fact may have been hidden from them by GE, the residents of Pittsfield called for state and federal authorities to take a tougher stance against GE to compel a more expeditious cleanup.<sup>19</sup>

Together, these two developments were the impetus that led to the proposed listing of the GE plant as a Superfund site.<sup>20</sup> On September 25, 1997, the Environmental Protection Agency (EPA) proposed to add the GE/Housatonic River Site to the NPL under CERCLA.<sup>21</sup> The proposed Superfund designation opened up a notice and comment period during which EPA invited all interested parties to submit their written comments concerning the placement of the GE/Housatonic River Site on the NPL.<sup>22</sup>

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<sup>14</sup> See *id.*

<sup>15</sup> See *id.*

<sup>16</sup> See Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601–9675 (1994); *Weld Turns Up Heat*, *supra* note 13, at B10.

<sup>17</sup> See Tynan, *supra* note 11, at A27; *A Polluter Disguised as Benefactor*, HARTFORD COURIER, Sept. 18, 1997, at A26.

<sup>18</sup> See Carley, *supra* note 1, at A1; Theo Stein, *River Restoration Rewards Environmentalists' Campaign*, BERKSHIRE EAGLE, Oct 26, 1998, at 16.

<sup>19</sup> See Carley, *supra* note 1, at A1; Tynan, *supra* note 11, at A27.

<sup>20</sup> See *Weld Turns Up Heat*, *supra* note 13, at B10; Tynan, *supra* note 11, at A27; *A Polluter Disguised as Benefactor*, *supra* note 17, at A26.

<sup>21</sup> See 62 Fed. Reg. 50,450, 50,454 (1997).

<sup>22</sup> See *id.* at 50,452; Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9605(a) (1994).

In light of ongoing negotiations between EPA's Intergovernmental Team and representatives from GE, EPA extended the notice and comment period numerous times.<sup>23</sup> EPA formed this partnership with several state and federal agencies in order to achieve a comprehensive solution to the environmental problems at the Pittsfield site.<sup>24</sup> The Intergovernmental Team attempted to negotiate a solution with GE in lieu of a final listing of the site on the NPL.<sup>25</sup> These negotiations collapsed on April 6, 1998, and EPA regional administrator, John DeVillars, announced that EPA will designate the GE/Housatonic River Site as a federal Superfund site.<sup>26</sup>

Despite this ominous threat from EPA, many people, including various Pittsfield city officials and then-Acting Governor Paul Cellucci, called for the negotiations between the Intergovernmental Team and GE to continue.<sup>27</sup> In June 1998, EPA delayed the Superfund designation and talks between the two groups resumed.<sup>28</sup> On September 24, 1998, these talks culminated in a negotiated settlement agreement between GE and the Intergovernmental Team for remediating the GE/Housatonic River Site.<sup>29</sup> Under the settlement, GE agreed to clean up the approximately 250 acre former plant site and turn portions of it over to the newly-established Pittsfield Economic Development Authority (PEDA) for redevelopment.<sup>30</sup> GE agreed to remove

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<sup>23</sup> See 62 Fed. Reg. 60,199, 60,199 (1997); 63 Fed. Reg. 10,582, 10,582 (1998). The Intergovernmental Team is comprised of EPA representatives, the Massachusetts Department of Environmental Protection, the Massachusetts Executive Office of Environmental Affairs, the Massachusetts Attorney General's Office, the Connecticut Department of Environmental Protection, the Connecticut Attorney General's Office, the U.S. Department of the Interior, the U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration, and the U.S. Department of Justice. *See id.*

<sup>24</sup> See 62 Fed. Reg. at 60,199.

<sup>25</sup> *See id.*

<sup>26</sup> See Cohen, *supra* note 3, at B2.

<sup>27</sup> See Peter J. Howe, *EPA Chief Prefers Talks with GE on PCB Cleanup*, BOSTON GLOBE, May 31, 1998, at B9 [hereinafter *PCB Cleanup*]; Matthew Falconer, *Call to Delay EPA Action on GE Criticized*, BOSTON GLOBE, May 23, 1998, at B5.

<sup>28</sup> See *PCB Cleanup*, *supra* note 27, at B9; Falconer, *supra* note 27, at B5; *EPA Pushes for Plan to Clean PCB Pollution; Seeks Deal with GE on Pittsfield Problem*, PATRIOT LEDGER, Sept. 15, 1998, at 7 [hereinafter *EPA Pushes for Plan*].

<sup>29</sup> See U.S. ENVTL. PROTECTION AGENCY, SUMMARY OF AGREEMENT: GENERAL ELECTRIC/PITTSFIELD—HOUSATONIC RIVER SITES (1998); Scott Allen & Peter Howe, *GE Accepts \$150M Plan to Clean Pittsfield Sites*, BOSTON GLOBE, Sept. 25, 1998, at A1; David Stout, *GE Agrees to Clean Part of Tainted River in Massachusetts*, N.Y. TIMES, Sept. 25, 1998, at A1; *GE to Pay \$150 Million to \$200 Million to Clean Up New England River*, WASH. POST, Sept. 25, 1998, at A5.

<sup>30</sup> See U.S. ENVTL. PROTECTION AGENCY, *supra* note 29, at 2-3, 8; Allen & Howe, *supra* note 29, at A1.

contaminated sediments from the one-half mile of the Housatonic River nearest the GE plant.<sup>31</sup> Through a cost-sharing agreement, GE also agreed to fund much of the anticipated cost of an additional mile-and-one-half of river cleanup to be conducted by EPA.<sup>32</sup> In addition, GE agreed to pay \$15 million in damages to be used for a number of projects designed to acquire or enhance wildlife habitat.<sup>33</sup> This settlement will benefit both the environmental and economic health of the city of Pittsfield by expediting the cleanup and focusing on the redevelopment of the former plant site.

This Comment will explore the advantages of a negotiated settlement as opposed to conducting the cleanup under a federal statutory regime such as RCRA or CERCLA. Section I of this Comment discusses PCBs and the extent of PCB contamination at GE's Pittsfield site. Section II examines the various pieces of federal legislation that have governed or could have governed the cleanup at the GE/Housatonic River Site. Section III discusses the various criticisms surrounding CERCLA. Section IV explores some alternatives to implementing remediation under CERCLA. Section V discusses the applicability of these alternatives to the GE/Housatonic River Site. Section VI looks at the novel alternative implemented by GE and EPA's Intergovernmental Team—the negotiated settlement—and discusses why this was the best possible outcome for the city of Pittsfield.

## I. PCB CONTAMINATION IN PITTSFIELD

### A. Polychlorinated Biphenyls (PCBs)

Polychlorinated biphenyls, more commonly known as PCBs, are a class of 209 discrete chemical compounds, called congeners, in which one to ten chlorine atoms are attached to biphenyl.<sup>34</sup> PCBs were discovered before the turn of the century and were widely used for industrial purposes between 1930 and 1977 because of their chemical and physical stability and their electrical insulating properties.<sup>35</sup>

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<sup>31</sup> See U.S. ENVTL. PROTECTION AGENCY, *supra* note 29, at 6; Allen & Howe, *supra* note 29, at A1.

<sup>32</sup> See U.S. ENVTL. PROTECTION AGENCY, *supra* note 29, at 6-7; Allen & Howe, *supra* note 29, at A1.

<sup>33</sup> See U.S. ENVTL. PROTECTION AGENCY, *supra* note 29, at 8.

<sup>34</sup> See ERICKSON, *supra* note 9, at 2.

<sup>35</sup> See *id.* at 2, 5; ENVIRONMENTAL HEALTH CRITERIA 140, POLYCHLORINATED BIPHENYLS AND TERPHENYLS 21 (2d ed. 1993).

PCBs were used primarily as dielectric and heat-exchange fluids in capacitors and transformers, but were also used in printing inks, paints, dedusting agents, pesticides, and a variety of other products.<sup>36</sup>

Although the chemical and physical stability of PCBs made their commercial use advantageous, these properties are the cause of the present environmental contamination problems.<sup>37</sup> The use of PCBs in such products as inks and pesticides resulted in widespread, low-level releases into the environment.<sup>38</sup> The use of PCBs as insulating fluids within transformers and other electrical equipment resulted in relatively high, locally concentrated environmental releases due to spills, improper handling, or improper disposal.<sup>39</sup> Since PCBs do not readily degrade in the environment, they tend to bioaccumulate after such releases or disposals.<sup>40</sup> As a result, although U.S. production of PCBs ceased in 1977, they are still present in the environment because of their high persistence and chemical and physical stability.<sup>41</sup>

Accordingly, most humans have been and will continue to be exposed to PCBs.<sup>42</sup> Today, the major source of PCB exposure in the general environment is the redistribution of PCBs previously introduced through various releases and disposals.<sup>43</sup> Most people whose blood serum has been analyzed for PCBs have been found to have from trace amounts to about thirty parts per billion (ppb) in their blood, with the mean level being ten ppb.<sup>44</sup>

When humans are acutely exposed to PCBs, either through the consumption of contaminated food or through inhalation and skin absorption in the work environment, toxic effects may occur.<sup>45</sup> The effects of exposure through consumption of contaminated food include a severe, persistent form of acne known as chloracne, fatigue, nausea, swelling, disturbed vision, skin lesions, and neurological problems.<sup>46</sup> The effects of exposure through inhalation and skin absorption

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<sup>36</sup> See ERICKSON, *supra* note 9, at 2.

<sup>37</sup> See *id.*

<sup>38</sup> See *id.*

<sup>39</sup> See *id.*

<sup>40</sup> See *id.*

<sup>41</sup> See ENVIRONMENTAL HEALTH CRITERIA 140, *supra* note 35, at 26; ERICKSON, *supra* note 9, at 5.

<sup>42</sup> See ENVIRONMENTAL HEALTH CRITERIA 140, *supra* note 35, at 444.

<sup>43</sup> See *id.* at 24.

<sup>44</sup> See ERICKSON, *supra* note 9, at 55.

<sup>45</sup> See ENVIRONMENTAL HEALTH CRITERIA 140, *supra* note 35, at 21.

<sup>46</sup> See *id.* at 444-51. The presence of these symptoms in humans was noted in two accidents, the Yusho accident in Japan and the Yu-Cheng accident in Taiwan, when rice oil contaminated

in the workplace include skin rash and irritation, itching, burning sensations, and irritation of the conjunctiva.<sup>47</sup> Furthermore, numerous studies on rodents have revealed that some congeners of PCBs may be carcinogenic and that they can promote the carcinogenicity of other chemicals.<sup>48</sup> However, there are presently no epidemiological studies available that provide conclusive evidence of an association between PCB exposure and increased cancer mortality.<sup>49</sup>

The lack of conclusive information concerning the effects of PCBs on humans is largely due to the many problems presented by the toxicological evaluation of PCBs.<sup>50</sup> First, since commercial PCBs are often contaminated with other toxins such as polychlorinated dibenzofurans (PCDFs), it is difficult to determine which effects are attributable to the PCBs themselves versus the much more toxic PCDFs.<sup>51</sup> Second, much of the data on the toxicity of PCBs is based on the testing of different mixtures of congeners in which PCBs occur.<sup>52</sup> Yet, some constituents of these mixtures are more easily degraded in the environment than others.<sup>53</sup> As a result, employees who regularly worked with PCBs were likely exposed to mixtures different from those to which the general population may currently be exposed, making a toxicological evaluation of one group inapplicable to the other.<sup>54</sup> This indicates that there is a need for data concerning the toxicity of the PCBs that are actually present in a specific contaminated area to determine the possible dangers.

The Massachusetts Department of Public Health (MDPH) compiled such data in "The Housatonic River Area PCB Exposure Assessment."<sup>55</sup> MDPH conducted this study on residents of the area around

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with high levels of PCBs poisoned thousands of people. *See id.* However, the oil did contain other toxic substances such as polychlorinated dibenzofurans (PCDFs), making it difficult to determine what effects were attributable to PCBs as opposed to the more toxic PCDFs. *See id.* at 444, 446, 449-50. In fact, several Japanese research groups have concluded that the main signs and symptoms in the Yusho intoxications were caused mainly by contaminants in the PCB mixture, namely PCDFs. *See id.* at 455-56.

<sup>47</sup> *See id.* at 456-67.

<sup>48</sup> *See id.* at 21.

<sup>49</sup> *See id.* at 40.

<sup>50</sup> *See* ENVIRONMENTAL HEALTH CRITERIA 140, *supra* note 35, at 444.

<sup>51</sup> *See id.* at 39; *see also supra* note 46 and accompanying text.

<sup>52</sup> *See* ENVIRONMENTAL HEALTH CRITERIA 140, *supra* note 35, at 39.

<sup>53</sup> *See id.*

<sup>54</sup> *See id.*

<sup>55</sup> *See generally* BUREAU OF ENVTL. HEALTH ASSESSMENT, MASSACHUSETTS DEP'T OF PUB. HEALTH, THE FINAL REPORT ON THE HOUSATONIC RIVER AREA PCB EXPOSURE ASSESSMENT AND RELATED HEALTH ISSUES (1997) [hereinafter FINAL REPORT].



the GE site in Pittsfield and the Housatonic River to determine whether various activities contributed to higher serum PCB levels.<sup>56</sup> The study consisted of two segments, the Exposure Prevalence Study and the Volunteer Study.<sup>57</sup> In the Exposure Prevalence Study, sixty-nine individuals with the highest potential for exposure to PCBs, based on screening questionnaire scores, received a blood test.<sup>58</sup> In the Volunteer Study, seventy-nine residents concerned about PCB exposure, but not invited to participate in the Exposure Prevalence Study, had their blood tested.<sup>59</sup>

MDPH found that the average serum level among nonoccupationally exposed participants was 4.49 ppb for those in the Exposure Prevalence Study and 5.77 ppb for those in the Volunteer Study.<sup>60</sup> These levels are within the normal background range for nonoccupationally exposed individuals.<sup>61</sup> It does not appear that the residents of the Housatonic River Area are experiencing higher levels of PCBs in their blood due to PCB contamination of the GE plant, the Housatonic River, and the surrounding areas.<sup>62</sup> The study also stated that previous studies conducted by MDPH showed that exposure through soil contact alone did not result in appreciable increases in serum PCB levels, thus addressing the concerns of residents who may have contaminated soil on their property.<sup>63</sup>

However, the Massachusetts Attorney General's Office criticized GE for misusing the information in this and other studies to downplay the potential adverse health effects of PCBs on humans.<sup>64</sup> The Attor-

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<sup>56</sup> See *id.* at 2. The Housatonic River Area comprises eight communities in Berkshire County, Massachusetts: Dalton, Great Barrington, Lanesborough, Lee, Lenox, Pittsfield, Sheffield, and Stockbridge. See *id.*

<sup>57</sup> See *id.* at 3.

<sup>58</sup> See *id.* For the Exposure Prevalence Study, 800 households were randomly chosen from among all those located within one-half mile of the Housatonic River (400 from Pittsfield and 400 from the other seven communities of the "Housatonic River Area" which border the river downstream) to answer a questionnaire evaluating the potential of household members for PCB exposure based on their activities. See *id.* Those households with the greatest potential for PCB exposure received the highest scores and were offered the opportunity for a blood test. See *id.*

<sup>59</sup> See *id.*

<sup>60</sup> See FINAL REPORT, *supra* note 55, at 4.

<sup>61</sup> See *id.*

<sup>62</sup> See *id.*

<sup>63</sup> See *id.* at 5.

<sup>64</sup> See Michael Cohen, *Harshbarger Panel Accuses GE of Misusing PCB Studies*, BOSTON GLOBE, Mar. 6, 1998, at B4. Another study which the Attorney General's Office accused GE of misusing was one conducted by Dr. David Wegman of the University of Massachusetts at Lowell. See *id.* This study looked at GE workers who had died of cancer over a 15-year period. See *id.* The Attorney General's Office says that GE's quoting of the Wegman study as failing to find an association between PCBs and excess cancer risk among GE employees is out of context. See *id.*

ney General's Office asserted that scientists and physicians who reviewed MDPH's "Housatonic River Area PCB Exposure Assessment" found indications that there could be serious risks to Pittsfield residents from environmental exposure to PCBs.<sup>65</sup> Unfortunately, this debate merely affirms the fact that even in studies conducted on the specific contaminated area, it is difficult, if not impossible, to determine whether or not PCB exposure results in a substantial health risk.

### *B. Contamination at the General Electric/Housatonic River Site in Pittsfield*

The GE manufacturing facility, located at 100 Woodlawn Avenue in Pittsfield, Massachusetts, comprises approximately 250 acres of land containing approximately 5 million square feet of buildings.<sup>66</sup> The various RCRA corrective action permit orders, under which GE had been implementing cleanup, broke down the GE property into a number of "sites" which include various areas of the GE property and the nearby Housatonic River.<sup>67</sup>

The PCB contamination at the GE plant site is extensive.<sup>68</sup> The approximately 250 acres contain at least sixteen PCB disposal sites.<sup>69</sup> In 1996, testing of these sites turned up a hot spot known as Building 68, where a 1000 gallon tank of PCBs imploded in the late 1960s, contaminating the riverbank and surrounding sediment.<sup>70</sup> GE immediately cleaned up the spill, but PCB counts now average 7550 parts per million (ppm) in the riverbank and 1550 ppm in the sediment.<sup>71</sup> This is an example of one of the more contaminated PCB disposal sites on the GE property.<sup>72</sup>

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<sup>65</sup> See *id.*

<sup>66</sup> See MASSACHUSETTS DEP'T OF ENVTL. PROTECTION, ADMINISTRATIVE CONSENT ORDER IN THE MATTER OF THE GENERAL ELECTRIC COMPANY—PITTSFIELD FACILITY 2 (1990).

<sup>67</sup> See *id.* at 2-4. Sites are identified geographically within the consent permits/orders as East Street Area 1 Site, East Street Area 2 Site, GE Facility, GE Facility (Remainder) Site, Hill 78 Area Site, Unkamet Brok Area Site and any other place or area where uncontrolled oil and/or hazardous waste material emanating from the properties is located. See *id.* Accordingly, new site names are established as contaminated areas are discovered. See *id.* These site names may be referred to in this Comment only to distinguish between remedial actions, and their actual geographic location is not important to the understanding of this Comment. See *id.*

<sup>68</sup> See Angelo, *supra* note 8, at 44.

<sup>69</sup> See *id.*

<sup>70</sup> See *id.*

<sup>71</sup> See *id.*

<sup>72</sup> See *id.*

Not only are the areas in and around the GE plant site heavily contaminated, but the Housatonic River itself shows high levels of PCBs.<sup>73</sup> GE's own 1983 study concluded that about 39,000 pounds of PCBs permeate Housatonic sediments, with seventy percent of the contaminants located between the plant and Woods Pond, which is twelve miles south.<sup>74</sup> Another twenty percent has been found in the pond, with the rest of the contamination stretching to the Connecticut border and beyond.<sup>75</sup> The Housatonic River eventually empties into Long Island Sound about 200 miles downstream.<sup>76</sup>

The contamination does not end here, however, as yard fill given away by GE in the 1940s and 1950s contaminated many residential properties, as well as playgrounds and school yards, with PCBs.<sup>77</sup> The extent of contamination at these sites has varied, with many residential properties containing PCB levels from 1000 ppm to a high of 44,000 ppm.<sup>78</sup> Although the actual potential danger depends on the mode of human contact, a PCB level of ten ppm in the soil is considered evidence of an imminent hazard under Massachusetts standards.<sup>79</sup> GE has voluntarily cleaned up about thirty sites, including two schools and a park.<sup>80</sup> GE plans to remediate about sixty other sites, at an estimated cost of \$20 million.<sup>81</sup> Since May 1998, EPA has fielded about forty more requests for PCB testing on residential properties, leaving uncertainty as to how many more contaminated properties exist.<sup>82</sup>

## II. THE STATUTORY REGIMES USED AND CONSIDERED FOR IMPLEMENTING CLEANUP AT THE GE/HOUSATONIC RIVER SITE

### A. *Resource Conservation and Recovery Act (RCRA)*

Congress enacted RCRA in 1976 to establish a comprehensive federal policy for waste management to respond to the vastly increased volume of hazardous waste that was posing a threat to human health and the environment.<sup>83</sup> Prior to the enactment of RCRA, the collection

<sup>73</sup> See Angelo, *supra* note 8, at 44.

<sup>74</sup> See *id.*

<sup>75</sup> See *id.*

<sup>76</sup> See *id.*

<sup>77</sup> See Carley, *supra* note 1, at A1; Tynan, *supra* note 11, at A27.

<sup>78</sup> See Tynan, *supra* note 11, at A27.

<sup>79</sup> See *id.*

<sup>80</sup> See *EPA Pushes for Plan*, *supra* note 28, at 7.

<sup>81</sup> See *id.*

<sup>82</sup> See *id.*

<sup>83</sup> See Solid Waste Disposal Act, 42 U.S.C. §§ 6901-6987 (1994); William L. Kovacs & John F.

and disposal of solid waste was primarily a state or local issue.<sup>84</sup> RCRA sought to change federal policy relating to solid waste management from a limited role of research and development to one of direct federal involvement.<sup>85</sup>

RCRA's purpose is threefold: (1) to provide guidance and funding for resource recovery projects developed by the states; (2) to encourage solid waste planning by the states; and (3) to mandate federal regulation of hazardous waste.<sup>86</sup> RCRA accomplishes these objectives both by establishing minimum standards applicable to all who generate, transport, treat, store, or dispose of hazardous wastes and by offering financial and technical assistance to states which voluntarily develop and implement a solid waste management plan that fulfills its threefold purpose.<sup>87</sup> Accordingly, under RCRA, each state is ultimately responsible for implementing its own program to deal with hazardous waste situations, as long as that program meets the federal minimum standards.<sup>88</sup>

Subsection C of RCRA is the portion of the statute that regulates the management of hazardous waste and mandates that EPA promulgate criteria and regulations for identifying and listing hazardous wastes.<sup>89</sup> To qualify for regulation under RCRA, a waste must be identified as a solid, hazardous waste.<sup>90</sup> Once identified, EPA can regulate the solid, hazardous waste in accordance with the regulations promulgated under RCRA.<sup>91</sup>

Pursuant to Subsection C of RCRA, all persons generating or transporting hazardous waste, and all owners or operators of hazardous waste treatment, storage, or disposal (TSD) facilities, must manage their hazardous waste in accordance with the strict minimum standards promulgated by EPA.<sup>92</sup> The primary focus of this section of the statute and the applicable regulations is on active TSD facilities

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Klucsik, *The New Federal Role in Solid Waste Management: The Resource Conservation and Recovery Act of 1976*, 3 COLUM. J. ENVTL. L. 205, 205-07 (1977).

<sup>84</sup> See Kovacs & Klucsik, *supra* note 83, at 205.

<sup>85</sup> See *id.* at 221.

<sup>86</sup> See 42 U.S.C. § 6902; Roger W. Andersen, *The Resource Conservation and Recovery Act of 1976: Closing the Gap*, 1978 WIS. L. REV. 633, 635 (1978).

<sup>87</sup> See 42 U.S.C. § 6902; Andersen, *supra* note 86, at 635; Kovacs & Klucsik, *supra* note 83, at 221-22.

<sup>88</sup> See Kovacs & Klucsik, *supra* note 83, at 223.

<sup>89</sup> See 42 U.S.C. § 6921(a)-(b).

<sup>90</sup> See *id.* §§ 6002(a), 6903(5), (27).

<sup>91</sup> See *id.* § 6921(a)-(b).

<sup>92</sup> See *id.* §§ 6922-6924; William W. Buzbee, *Remembering Repose: Voluntary Contamination Cleanup Approvals, Incentives, and the Costs of Interminable Liability*, 80 MINN. L. REV. 35, 66 (1995).

that currently treat, store, and dispose of hazardous wastes.<sup>93</sup> However, EPA may still identify a nonactive site as a "storage" or "disposal" facility because RCRA considers hazardous wastes to be stored where previously disposed of or discarded.<sup>94</sup>

The "cradle-to-grave" regulatory system created by RCRA prohibits any treatment, storage, or disposal of hazardous waste without a permit.<sup>95</sup> An applicant can only obtain a TSD permit if it demonstrates that it will conduct treatment, storage, or disposal activities in compliance with numerous standards.<sup>96</sup> The most important of which is the requirement that the applicant conduct corrective action in response to releases of hazardous waste.<sup>97</sup>

Corrective action under RCRA involves the cleanup of hazardous waste released from a TSD facility.<sup>98</sup> Once EPA has identified a TSD facility that may be in need of corrective action, it will perform a RCRA Facility Assessment (RFA).<sup>99</sup> If the RFA shows that there has been or may be a release of hazardous waste, EPA will require the owner or operator of the TSD facility to perform a RCRA Facility Investigation (RFI).<sup>100</sup> The RFI identifies the extent and the nature of the contamination at the site.<sup>101</sup> EPA uses the results of the RFI to determine whether a cleanup is necessary.<sup>102</sup> If EPA decides that a cleanup is necessary, the TSD facility must undertake a Corrective Measures Study (CMS).<sup>103</sup> The CMS identifies possible remedies and evaluates their cost and effectiveness.<sup>104</sup> After reviewing the CMS, EPA will approve one of the alternatives and the owner or operator of the TSD facility will implement the required corrective action.<sup>105</sup>

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<sup>93</sup> See 53 Fed. Reg. 23,978, 23,981 (1988); Buzbee, *supra* note 92, at 66.

<sup>94</sup> See 42 U.S.C. § 6928(h); Buzbee, *supra* note 92, at 66.

<sup>95</sup> See 42 U.S.C. § 6925(a); J. Stanton Curry et al., *The Tug-of-War Between RCRA and CERCLA at Contaminated Hazardous Waste Facilities*, 23 ARIZ. ST. L.J. 359, 363 (1991).

<sup>96</sup> See 40 C.F.R. pt. 264 (1998); Curry et al., *supra* note 95, at 363.

<sup>97</sup> See 42 U.S.C. § 6924(u), (v); Curry et al., *supra* note 95, at 363.

<sup>98</sup> See Curry et al., *supra* note 95, at 364.

<sup>99</sup> See 55 Fed. Reg. 30,798, 30,810 (1990); Curry et al., *supra* note 95, at 376; Ian G. John, *Too Much Waste: A Proposal for Change in the Government's Effort to Clean Up the Nation*, 70 IND. L.J. 951, 963 (1995).

<sup>100</sup> See 55 Fed. Reg. at 30,810-13; Curry et al., *supra* note 95, at 376; John, *supra* note 99, at 964.

<sup>101</sup> See 55 Fed. Reg. at 30,810-13; Curry et al., *supra* note 95, at 376; John, *supra* note 99, at 964.

<sup>102</sup> See John, *supra* note 99, at 964.

<sup>103</sup> See 55 Fed. Reg. at 30,813-23; Curry et al., *supra* note 95, at 377; John, *supra* note 99, at 964.

<sup>104</sup> See Curry et al., *supra* note 95, at 377; John, *supra* note 99, at 964-65.

<sup>105</sup> See 55 Fed. Reg. at 30,834-38; Curry et al., *supra* note 95, at 377; John, *supra* note 99, at 966.

The owner or operator must conduct this remediation as a condition of receiving or maintaining a TSD Permit.<sup>106</sup> However, the owner or operator of the TSD facility may seek judicial review of any EPA action in "issuing, denying, modifying, or revoking any permit" under RCRA.<sup>107</sup> Furthermore, interested parties may seek judicial review of any final regulations promulgated under RCRA.<sup>108</sup> The applicable standard of review, as defined in the Administrative Procedure Act, permits the courts to set aside only those EPA decisions that are arbitrary and capricious.<sup>109</sup> Because RCRA corrective actions are part of the permitting process, EPA decisions in such matters are immediately reviewable.<sup>110</sup>

In 1984, Congress, through the Hazardous and Solid Waste Amendments (HSWA), substantially expanded RCRA corrective action authorities with the addition of sections 6924(u), 6924(v), 6928(h) and the amendment of section 6973.<sup>111</sup> "Section 6924(u) requires every TSD facility seeking a RCRA permit to undertake corrective action for any release of a 'hazardous waste or constituent[]' from any 'solid waste management unit,' regardless of when a waste was placed in the unit."<sup>112</sup> Section 6924(v) requires every TSD facility seeking a RCRA permit to undertake corrective action for any release of a hazardous waste beyond the facility's boundaries unless the owner of the affected property does not consent to the corrective action.<sup>113</sup> Finally, section 6928(h) "authorizes the EPA to order any interim status facility that releases a hazardous waste into the environment to undertake a corrective action or any other response action the EPA deems necessary to protect human health or the environment."<sup>114</sup> The addition of these sections vastly expanded the reach of EPA and gave

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<sup>106</sup> See Curry et al., *supra* note 95, at 363, 378.

<sup>107</sup> Solid Waste Disposal Act, 42 U.S.C. § 6976(b) (1994); Curry et al., *supra* note 95, at 386.

<sup>108</sup> See 42 U.S.C. § 6976(b); Curry et al., *supra* note 95, at 386.

<sup>109</sup> See 5 U.S.C. § 706(2)(A) (1994); Curry et al., *supra* note 95, at 386.

<sup>110</sup> See 42 U.S.C. § 6976; Curry et al., *supra* note 95, at 386.

<sup>111</sup> See Pub. L. No. 98-616, 98 Stat. 3221 (codified as amended at 42 U.S.C. §§ 6924(u), (v), 6928(h), 6972, 6973 (1994)); Curry et al., *supra* note 95, at 365.

<sup>112</sup> Curry et al., *supra* note 95, at 365.

<sup>113</sup> See 42 U.S.C. § 6924(v); Curry et al., *supra* note 95, at 366.

<sup>114</sup> Curry et al., *supra* note 95, at 366; see also 42 U.S.C. § 6928(h). In order to avoid a situation where an existing hazardous waste treatment, storage or disposal facility would have to stop operations, Congress provided a special "interim status" for existing operations to continue, pending the receipt of a permit. See 42 U.S.C. § 6925(e); Joseph F. Guida, *Corrective Action Under the Resource Conservation and Recovery Act*, 44 Sw. L.J. 1331, 1335 (1991). The addition of § 6928(h) allowed EPA to order such facilities to undertake a corrective action. See Curry et al., *supra* note 95, at 366.

it the power to regulate and order remediation at virtually all contaminated sites.<sup>115</sup>

As amended, section 6973(a) allows EPA to bring a court action against a past or present generator, transporter, or owner or operator of a TSD facility who has contributed or is contributing to any handling, storage, treatment, transportation, or disposal of solid, hazardous waste that may present "an imminent and substantial endangerment to human health or the environment."<sup>116</sup> The "imminent endangerment" provision requires the presence of a continuing endangerment in order to receive relief.<sup>117</sup> Accordingly, although a court action by EPA may be effective for dealing with active sites where "imminent" hazardous wastes exist, additional measures, beyond the scope of RCRA, were needed to regulate cleanup, damages, and compensation of abandoned and inactive sites.<sup>118</sup>

On May 27, 1981, GE entered into its first consent agreement with state and federal environmental agencies under RCRA to begin the remediation process.<sup>119</sup> Pursuant to that agreement, GE completed an extensive study of PCBs in the river system, evaluated various remedial options, and implemented those options selected by the agencies.<sup>120</sup> In 1990, GE entered into consent orders with the Massachusetts Department of Environmental Protection (MDEP) covering the Housatonic River, Silver Lake, the GE plant, and former oxbows.<sup>121</sup> These consent orders called for comprehensive site investigations, risk assessments, and studies of potential remedial measures, as well as several short-term measures.<sup>122</sup> In 1991, EPA issued a RCRA corrective action permit covering essentially the same sites as the MDEP consent orders and the same series of steps.<sup>123</sup> However, since that permit contained no provision for coordination between EPA and MDEP, GE and the state of Massachusetts appealed the permit to

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<sup>115</sup> See Curry et al., *supra* note 95, at 365-66.

<sup>116</sup> 42 U.S.C. § 6973(a) (authorizing EPA to compel cleanups at facilities requiring corrective action even if they do not have TSD permits).

<sup>117</sup> *Id.*

<sup>118</sup> See Barbara L. Barber, *The Supreme Court "Missed the Forest for the Trees" in Meghrig v. KFC Western, Inc.*, 24 N. KY. L. REV. 109, 114 (1996).

<sup>119</sup> See MASSACHUSETTS DEP'T OF ENVTL. PROTECTION, *supra* note 66, at 1.

<sup>120</sup> See *GE in Pittsfield*, *supra* note 4.

<sup>121</sup> See MASSACHUSETTS DEP'T OF ENVTL. PROTECTION, *supra* note 66, at 1-5 (issued pursuant to MA Gen. Laws ch. 21E).

<sup>122</sup> See *id.* at 5-15.

<sup>123</sup> See generally U.S. ENVTL. PROTECTION AGENCY, PERMIT UNDER THE HAZARDOUS AND SOLID WASTE AMENDMENTS OF 1984 (1991).

ensure coordination.<sup>124</sup> As a result, EPA and MDEP entered into a Memorandum of Understanding (MOU) agreeing to coordinate their efforts.<sup>125</sup> EPA issued a revised RCRA permit in December 1993, which became effective in January 1994.<sup>126</sup>

During these first thirteen years, the RCRA process was criticized for allowing GE to appeal each corrective action decision made by EPA.<sup>127</sup> Furthermore, many people felt RCRA dictated a seemingly endless series of studies that never seemed to find the worst areas of contamination.<sup>128</sup> Residents of Pittsfield argued that, under RCRA, more testing and legal wrangling occurred than did actual cleanup.<sup>129</sup>

Some actual remediation began, however, under the RCRA permit that became effective in January 1994.<sup>130</sup> Under this RCRA corrective action permit, GE removed approximately 14,098 tons of contaminated soil from the Pittsfield area.<sup>131</sup> The removed soil came not only from the plant area, but also from surrounding contaminated properties, as mandated by section 6924(v) of RCRA.<sup>132</sup> GE rebuilt Woods Pond Dam and assisted in the reconstruction of Rising Pond Dam on the Housatonic River to prevent downstream migration of PCBs.<sup>133</sup> GE also removed contaminated soil and installed an engineered cap at the Allendale School in Pittsfield, and installed a second cap at a former GE landfill to eliminate public exposure to PCBs.<sup>134</sup> GE engaged in oil recovery in and around the plant site and installed a new groundwater oil recovery system.<sup>135</sup> To deal with the contamination of the various residential properties, GE voluntarily cleaned up about thirty sites, resulting in the removal of nearly 100,000 tons of soil.<sup>136</sup>

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<sup>124</sup> See *GE in Pittsfield*, *supra* note 4.

<sup>125</sup> See *id.*

<sup>126</sup> See U.S. ENVTL. PROTECTION AGENCY, PERMIT UNDER THE HAZARDOUS AND SOLID WASTE AMENDMENTS OF 1984 (1994) (permit is effective until Feb. 11, 2001) [hereinafter PERMIT].

<sup>127</sup> See Solid Waste Disposal Act, 42 U.S.C. § 6976(b) (1994); Curry et al., *supra* note 95, at 386; Angelo, *supra* note 8, at 44.

<sup>128</sup> See Theo Stein, *Breakthrough on PCBs: EPA, GE Accord Yields Hope for Region's Revitalization*, BERKSHIRE EAGLE, Oct. 26, 1998, at 1 [hereinafter *Breakthrough on PCBs*].

<sup>129</sup> See *id.*

<sup>130</sup> See *GE in Pittsfield*, *supra* note 4.

<sup>131</sup> See *id.*

<sup>132</sup> See 42 U.S.C. § 6924(v) (requiring a TSD facility to undertake corrective action for any release of hazardous waste that migrates beyond the facility's boundaries); see also *GE in Pittsfield*, *supra* note 4.

<sup>133</sup> See *GE in Pittsfield*, *supra* note 4.

<sup>134</sup> See *id.*

<sup>135</sup> See *id.*

<sup>136</sup> See *id.*; Allen & Howe, *supra* note 29, at A1; *EPA Pushes for Plan*, *supra* note 28, at 7.



GE plans to remediate about sixty other sites, at an estimated cost of \$20 million.<sup>137</sup>

In June 1997, at the request of local elected officials, GE proposed to the state and federal agencies a plan to make a fifteen-acre portion of its plant site available for reuse by the city of Pittsfield after GE tears down the buildings and completes remediation of that area.<sup>138</sup> GE proposed this project as a pilot that would demonstrate how to implement productive reuse of the vacant portions of the 250-acre site.<sup>139</sup> After EPA proposed the GE/Housatonic River Site for Superfund listing, GE used this type of redevelopment proposal as a significant bargaining chip in the negotiations.<sup>140</sup>

EPA proposed to add the GE/Housatonic River Site to the NPL under CERCLA on September 25, 1997.<sup>141</sup> This proposal predictably slowed the RCRA corrective action process.<sup>142</sup> Since the legal status of the site had not yet changed, cleanup was still proceeding under RCRA, but GE obviously wanted to slow that process to avoid spending money on RCRA remediation when it faced the possibility of a proposed Superfund listing.<sup>143</sup> With such a listing, EPA would likely take control of the cleanup and require GE to pay the costs, and possibly, triple damages.<sup>144</sup>

### B. *Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)*

Prompted by notorious abandoned toxic waste sites such as Love Canal in New York, Congress passed CERCLA, commonly known as Superfund, in 1980.<sup>145</sup> In 1986, Congress amended CERCLA in what

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<sup>137</sup> See *EPA Pushes for Plan*, *supra* note 28, at 7.

<sup>138</sup> See *GE in Pittsfield*, *supra* note 4.

<sup>139</sup> See *id.*

<sup>140</sup> See Peter J. Howe, *EPA Chief Prefers Talks With GE on PCB Cleanup*, BOSTON GLOBE, May 31, 1998, at B9.

<sup>141</sup> See 62 Fed. Reg. 50,450, 50,454 (1997).

<sup>142</sup> See *id.*

<sup>143</sup> Robert S. Berger et al., *Recycling Industrial Sites in Erie County: Meeting the Challenge of Brownfield Redevelopment*, 3 BUFF. ENVTL. L.J. 69, 95 (1995). Since remediation under RCRA was not yet complete, it was still possible for GE to become liable under CERCLA. See *id.*

<sup>144</sup> See Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9604, 9607(a), (c)(3).

<sup>145</sup> See *id.* §§ 9601-9675; John C. Cruden, *CERCLA Overview*, SA85 ALI-ABA 517, 519 (1996). See generally Frank P. Grad, *A Legislative History of the Comprehensive Environmental Response, Compensation and Liability ("Superfund") Act of 1980*, 8 COLUM. J. ENVTL. L. 1 (1982).

is collectively known as the Superfund Amendments and Reauthorization Act of 1986 (SARA).<sup>146</sup> Congress explicitly enacted CERCLA to protect human health and the environment.<sup>147</sup> CERCLA created a fund paid for by taxes, including taxes on chemical use, to finance federal enforcement and cleanups of hazardous waste sites (hence the name "Superfund").<sup>148</sup> CERCLA sought to fill the gaps in the then-existing environmental regulations by granting the federal government the power to clean up toxic waste sites and force the responsible parties to pay the costs.<sup>149</sup>

The release or substantial threat of release of a hazardous substance from a vessel or at a facility by a responsible party triggers liability under CERCLA.<sup>150</sup> CERCLA defines Potentially Responsible Parties (PRPs) as current owners and operators, past owners and operators, generators, and transporters.<sup>151</sup> This broad definition allows the federal government to hold responsible any party who is associated with a piece of contaminated property and deem them fully liable for the cost of cleanup.<sup>152</sup> Since CERCLA provides strict liability, plaintiffs need not prove that a PRP's conduct was negligent.<sup>153</sup> Furthermore, since the courts have uniformly ruled that liability under CERCLA is joint and several, EPA can hold every PRP at a site where the harm is indivisible, individually liable for the entire cost of site cleanup, thus forcing PRPs to sue each other for contribution.<sup>154</sup>

When the parties responsible for a site's contamination cannot be identified, are recalcitrant, or are insolvent, the Superfund enables cleanups to be carried out by the government.<sup>155</sup> The government will use Superfund monies to remediate the toxic waste site and then

<sup>146</sup> See Pub. L. No. 99-499, 100 Stat. 1613 (1986) (codified as amended in scattered sections of 42 U.S.C.); Cruden, *supra* note 145, at 519.

<sup>147</sup> See Scott C. Whitney, *Expediting Productive Reuse of Superfund Sites: Some Legislative Solutions for Virginia and the Nation*, 20 WM. & MARY ENVTL. L. & POL'Y REV. 223, 223 (1996). See generally 42 U.S.C. §§ 9601-9675 (1994).

<sup>148</sup> See 42 U.S.C. § 9611; Ragna Henrichs, *Superfund's NPL: The Listing Process*, 63 ST. JOHN'S L. REV. 717, 720-21 (1989).

<sup>149</sup> See 42 U.S.C. § 9607; Henrichs, *supra* note 148, at 719-21.

<sup>150</sup> See 42 U.S.C. § 9607(a); Cruden, *supra* note 145, at 527-29.

<sup>151</sup> See 42 U.S.C. § 9607(a)(1)-(4); Cruden, *supra* note 145, at 529-31.

<sup>152</sup> See 42 U.S.C. § 9607(a); Berger et al., *supra* note 143, at 80-81.

<sup>153</sup> See 42 U.S.C. § 9601(32); Cruden, *supra* note 145, at 521-22.

<sup>154</sup> See 42 U.S.C. § 9607(a); United States v. Meyer, 889 F.2d 1497, 1507 (6th Cir. 1989); Cruden, *supra* note 145, at 522.

<sup>155</sup> See 42 U.S.C. § 9604; Cruden, *supra* note 145, at 523; Henrichs, *supra* note 148, at 749; THE LAW OF HAZARDOUS WASTE: MANAGEMENT, CLEANUP, LIABILITY, AND LITIGATION §§ 13, 18 (Susan M. Cooke ed., 1998) [hereinafter THE LAW OF HAZARDOUS WASTE].

engage in cost recovery actions, whenever possible, to require responsible parties to replenish the Superfund.<sup>156</sup> When EPA can identify the responsible parties, it may undertake the cleanup and require the parties to reimburse the costs to the Superfund, or may require the parties to perform the cleanup themselves.<sup>157</sup>

A listing on the NPL usually begins the formal process of remediation under CERCLA.<sup>158</sup> CERCLA requires the President, who delegated authority to the EPA Administrator, to prepare a National Contingency Plan (NCP) for remediating hazardous substance releases and to create a NPL of hazardous waste sites most in need of attention.<sup>159</sup> EPA must update the NPL annually through informal rulemaking proceedings.<sup>160</sup>

When EPA discovers a site where a release or a threat of release may exist, it will place this potential NPL site in the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS).<sup>161</sup> CERCLIS is a comprehensive database that contains the official catalog of CERCLA sites.<sup>162</sup> To determine NPL eligibility for those sites listed in the CERCLIS, EPA will conduct a number of evaluations and assessments.<sup>163</sup> First, EPA will conduct a preliminary assessment (PA), which is a low cost review of the existing information.<sup>164</sup> If the site presents a serious threat to health or the environment, EPA will begin a removal action even before listing the site on the NPL.<sup>165</sup> If EPA determines that the site presents a threat that is not imminent, it will conduct a site inspection (SI) to collect additional data for calculating the site's Hazard Ranking System (HRS) score and to eliminate sites that do not qualify for listing on the NPL.<sup>166</sup>

The HRS screening device estimates the potential hazard or risk presented by releases or threatened releases of hazardous substances

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<sup>156</sup> See 42 U.S.C. §§ 9604, 9607; Cruden, *supra* note 145, at 523-25; Henrichs, *supra* note 148, at 749; THE LAW OF HAZARDOUS WASTE, *supra* note 156, § 14, at 10.

<sup>157</sup> See 42 U.S.C. §§ 9604, 9607; Cruden, *supra* note 145, at 524-25.

<sup>158</sup> See Terry C. Clarke, *A Practitioner's View of the National Priorities List*, 2 ENVTL. LAW. 57, 63 (1995).

<sup>159</sup> See 42 U.S.C. § 9605(a); Clarke, *supra* note 158, at 59.

<sup>160</sup> See 42 U.S.C. § 9605(a)(8)(B).

<sup>161</sup> See Clarke, *supra* note 158, at 64.

<sup>162</sup> See 40 C.F.R. § 300.5 (1998); Clarke, *supra* note 158, at 64.

<sup>163</sup> See Clarke, *supra* note 158, at 64.

<sup>164</sup> See 40 C.F.R. § 300.420; Clarke, *supra* note 158, at 64.

<sup>165</sup> See 60 Fed. Reg. 8212, 8214 (1995); Clarke, *supra* note 158, at 64.

<sup>166</sup> See 60 Fed. Reg. at 8214; Clarke, *supra* note 158, at 65.

into the environment.<sup>167</sup> The HRS requires extensive information about the facility, its surroundings, the hazardous substances at the site, and the geological character of the surrounding area—all of which are evaluated for each site by the assignment of numerical values.<sup>168</sup> The final score is calculated in accordance with a formula that assigns weights to all numerical values and then totals all the relevant figures.<sup>169</sup> HRS scores range from zero to 100, and sites that score 28.5 or greater are eligible for listing on the NPL.<sup>170</sup>

EPA may then place an individual site on the NPL by promulgating a regulation pursuant to standard notice and comment rulemaking procedures.<sup>171</sup> After EPA proposes the site for inclusion on the NPL, interested parties usually have sixty days to file comments or objections to the proposed listing.<sup>172</sup> When EPA publishes the Final Notice of Listing, its decision can be challenged by filing a petition for judicial review in the United States Court of Appeals for the District of Columbia, which has exclusive jurisdiction over any regulations promulgated under CERCLA.<sup>173</sup> The applicable standard of review defined in the Administrative Procedure Act allows the judiciary to set aside or compel agency action where the agency decision is “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with the law.”<sup>174</sup> This standard affords great deference to EPA’s technical determinations.<sup>175</sup>

Once EPA names a site to the NPL, the remediation process begins.<sup>176</sup> “The remediation process consists of several phases: a Remedial Investigation and Feasibility Study (RI/FS) that defines the extent of contamination and explores remediation alternatives; a Record of Decision (ROD) that selects and describes the remediation alternative selected; and the Remedial Design/Remedial Action, which in-

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<sup>167</sup> See Henrichs, *supra* note 148, at 729–30.

<sup>168</sup> See *id.*

<sup>169</sup> See *id.*

<sup>170</sup> See 40 C.F.R. § 300 (1998); Henrichs, *supra* note 148, at 730. A site may also be designated to the NPL by each state or territory’s ability to designate one priority site, regardless of its HRS score and by EPA’s ability to make an emergency designation if certain criteria are met. See 40 C.F.R. § 300.425(c)(2), (3).

<sup>171</sup> See *Northside Sanitary Landfill, Inc. v. Thomas*, 849 F.2d 1516, 1518 n.3 (D.C. Cir. 1988); Clarke, *supra* note 158, at 65.

<sup>172</sup> See Administrative Procedures Act, 5 U.S.C. § 553(c) (1994); Clarke, *supra* note 158, at 65.

<sup>173</sup> See 42 U.S.C. § 9613(a) (1994); Henrichs, *supra* note 148, at 747.

<sup>174</sup> 5 U.S.C. § 706(2)(A); see Henrichs, *supra* note 148, at 748.

<sup>175</sup> See Henrichs, *supra* note 148, at 748.

<sup>176</sup> See Clarke, *supra* note 158, at 63.

volves actual performance of the remediation plan.”<sup>177</sup> At this point, EPA can do the work itself using money from the Superfund which will be reimbursed by the PRPs (if they are available), order the PRPs to do the work by issuing an administrative order, or petition for court-ordered injunctive relief.<sup>178</sup>

When courts or EPA require PRPs to reimburse the Superfund, they may also be liable for punitive damages of up to three times the cost of remediation.<sup>179</sup> EPA may also require the payment of natural resource damages for “injury to, destruction of, or loss of natural resources, including the reasonable costs of assessing such injury, destruction, or loss resulting from” a release of a hazardous substance.<sup>180</sup> Because neither of these remedies is available under RCRA, pursuing a claim under CERCLA is often much more attractive to EPA.

Although the initial driving forces behind the proposed Superfund listing for the GE/Housatonic River Site were the 1996 senatorial contest between John F. Kerry and William F. Weld and the discovery of PCBs on residential property in the Pittsfield area, federal regulators were quick to abandon the RCRA consent permits in support of the Superfund listing.<sup>181</sup> The listing was attractive to EPA because it would have allowed the Agency to control the implementation of the entire remediation plan and recover up to three times the cost of cleanup from GE.<sup>182</sup> Moreover, a Superfund listing would authorize EPA to recover damages for injury to natural resources, whereas RCRA does not provide for such a recovery.<sup>183</sup> Federal regulators viewed the recovery of these “natural resource damages” as an important precedent to set as they would be dealing with GE, and similar corporations, on other contaminated sites in the future.<sup>184</sup>

When EPA proposed the Superfund listing in September 1997, GE's main reason for opposing it was because of the extremely high price it would have to pay for the cleanup, especially in light of CERCLA's inclusion of the natural resources damages and the triple damages

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<sup>177</sup> *Id.*; see 40 C.F.R. §§ 300.430(a)(2), (f)(4)–(6), 300.435 (1998); Cruden, *supra* note 145, at 524.

<sup>178</sup> See Cruden, *supra* note 145, at 524–25.

<sup>179</sup> See 42 U.S.C. § 9607(c)(3); Curry et al., *supra* note 95, at 367.

<sup>180</sup> 42 U.S.C. § 9607(a)(4)(C).

<sup>181</sup> See *Weld Turns Up the Heat*, *supra* note 13, at B10; Tynan, *supra* note 11, at A27.

<sup>182</sup> See 42 U.S.C. §§ 9604, 9607(a), (c)(3).

<sup>183</sup> Compare 42 U.S.C. § 9607(a)(4)(C) with generally, 42 U.S.C. §§ 6901–6987.

<sup>184</sup> See 42 U.S.C. § 9607(a)(4)(c); Theo Stein, *PCB Deal Establishes Precedent*, *BERKSHIRE EAGLE*, Oct. 26, 1998, at 1 [hereinafter *PCB Deal*]; *Breakthrough on PCBs*, *supra* note 128, at 1.

provisions.<sup>185</sup> GE was also very much opposed to EPA's plan to dredge out the PCB-sediment in a two-mile stretch of the Housatonic River.<sup>186</sup> GE claimed that scientific soundness of dredging had not yet been proven and that it may even do more harm than good to the river.<sup>187</sup> Obviously, GE wanted to avoid paying about \$40 million for a remedy that may not prove to be beneficial.<sup>188</sup> Aside from GE's own aversion to the CERCLA regime, there are a number of valid criticisms surrounding the way the regime is implemented.

### III. CRITICISMS OF CERCLA

Although state and federal regulators were initially quick to embrace the idea of a Superfund listing, the deficiencies of the CERCLA regime became obvious. The two most basic criticisms of the Superfund scheme are the length of time it takes to remediate a hazardous waste site and the resulting high cost of remediation.<sup>189</sup> Furthermore, the extremely broad liability and the very stringent, yet uncertain, clean-up criteria CERCLA imposes serve as formidable barriers to the redevelopment of the contaminated site.<sup>190</sup>

#### A. Remediation Takes Too Long Under CERCLA

As of September 25, 1997, there were 1204 sites on the NPL and another fifty-two proposed sites awaiting final agency action.<sup>191</sup> Since CERCLA's passage in 1980, only 135 sites have been completely cleaned up and deleted from the NPL.<sup>192</sup> Unfortunately, it could be more than a decade before cleanup is completed at the sites presently on the NPL.<sup>193</sup>

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<sup>185</sup> See 42 U.S.C. §§ 9607(a)(4)(C), (c)(3); Carley, *supra* note 1, at A1; Cohen, *supra* note 3, at B2.

<sup>186</sup> See Cohen, *supra* note 3, at B2.

<sup>187</sup> See *id.*

<sup>188</sup> See *id.* GE spokesperson, David Warshaw, stated that EPA was demanding "an ecologically devastating two-mile dredging project, before evaluation and balancing any adverse impacts of the dredging, and that is unprecedented and violates the EPA's own policy and regulations." *Id.*

<sup>189</sup> See Robert W. McGee, *Superfund: It's Time for Repeal After a Decade of Failure*, 12 UCLA J. ENVTL. L. & POL'Y 165, 166 (1993).

<sup>190</sup> See *id.* at 173-75; Sarah W. Rubenstein, Comment, *CERCLA's Contribution to the Federal Brownfields Problem: A Proposal for Federal Reform*, 4 U. CHI. L. SCH. ROUNDTABLE 149, 161-62 (1997); Julie A. Solo, Comment, *Urban Decay and the Role of Superfund: Legal Barriers to Redevelopment and Prospects for Change*, 43 BUFF. L. REV. 285, 292-93 (1995).

<sup>191</sup> See 62 Fed. Reg. at 50,450, 50,453 (1997).

<sup>192</sup> See *id.*

<sup>193</sup> See U.S. GEN. ACCOUNTING OFFICE, *SUPERFUND: TIMES TO COMPLETE THE ASSESSMENT*

In March 1997, the U.S. General Accounting Office reported that the "EPA took an average of 9.4 years—calculated from the date of each site's discovery—to evaluate and process the nonfederal sites it added to the National Priorities List in 1996."<sup>194</sup> Once placed on the NPL, clean-up completions took an average of 10.6 years.<sup>195</sup> This means that a hazardous waste site, once identified, could languish in the Superfund system for close to twenty years before cleanup is completed.<sup>196</sup>

EPA says the increase in the time taken to list sites on the NPL has occurred because of the large number of sites initially referred to the agency for evaluation and EPA's emphasis on completing work on already listed sites.<sup>197</sup> EPA attributes "the increases in time taken to complete cleanups to the growing complexity of the cleanup problems at the sites, the agency's efforts to reach settlements with the parties responsible for the contamination at sites, and resource constraints."<sup>198</sup>

### B. Remediation Is Too Expensive Under CERCLA

As of 1995, the average clean-up cost at a NPL site was over \$30 million.<sup>199</sup> These costs are much higher for projects of the complexity and magnitude of the GE/Housatonic River Site, which is the largest contaminated industrial site in New England and has an estimated clean-up cost of more than \$250 million.<sup>200</sup> The most pressing concern surrounding these high costs is that a sizable portion of the Superfund budget is wasted on repetitive feasibility studies, administrative costs, and litigation, rather than used for actual cleanup.<sup>201</sup>

All parties involved in a Superfund site are concerned that a large portion of the clean-up cost is allocated to transactional costs instead of actual site remediation.<sup>202</sup> Estimates of Superfund transaction costs

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AND CLEANUP OF HAZARDOUS WASTE SITES 2 (1997) [hereinafter U.S. GEN. ACCOUNTING OFFICE REPORT].

<sup>194</sup> *Id.* at 1.

<sup>195</sup> *See id.* at 2.

<sup>196</sup> *See id.*

<sup>197</sup> *See id.*

<sup>198</sup> U.S. GEN. ACCOUNTING OFFICE REPORT, *supra* note 193, at 2.

<sup>199</sup> *See* ANALYZING SUPERFUND: ECONOMICS, SCIENCE AND LAW 14 (Richard L. Revesz & Richard B. Stewart eds., 1995) [hereinafter ANALYZING SUPERFUND].

<sup>200</sup> *See Breakthrough on PCBs, supra* note 128, at 1.

<sup>201</sup> *See* McGee, *supra* note 189, at 170 (about 75% of Superfund's budget is spent on repetitive studies and litigation rather than cleanups).

<sup>202</sup> *See* Frank Cross & Scott Segal, *And the Meek Shall Inherit Cleaner Earth*, 9 J. NAT. RESOURCES & ENVTL. L. 269, 270 (1993-94); John, *supra* note 99, at 970-71.

have ranged from twenty-one to forty-four percent of total project expenditures.<sup>203</sup> A Rand Corporation study concluded that transaction costs accounted for thirty-two percent of private-sector PRP expenditures and eighty-eight percent of insurer expenditures on insurance claims related to hazardous waste cleanups through 1991.<sup>204</sup> Furthermore, "the private sector incurred \$11.3 billion in NPL-related expenditures through 1991, of which 36% were transactional in nature."<sup>205</sup>

The Rand Corporation's research on Superfund transaction costs attributes those high costs to a "litigious atmosphere" and an "adversarial relationship" between government and PRPs.<sup>206</sup> The situation is largely a result of "joint and several liability [which] sets up a tension between the EPA and the parties, as well as among the parties themselves, at a time when the EPA might also prefer to have cooperation and expeditious handling of a site."<sup>207</sup>

Some commentators have further asserted that a portion of the extensive clean-up costs is likely due to poor control or oversight.<sup>208</sup> When EPA remediates a site itself using Superfund monies and seeks reimbursement from the PRPs, it hires contractors to perform the investigative and remedial work.<sup>209</sup> These commentators argue that often the same contractor is hired for both types of work, which creates an incentive for the contractor to inflate the projected clean-up costs.<sup>210</sup> In addition, EPA does not always closely monitor expenses to prevent frivolous expenditures and the padding of expense accounts by contractors.<sup>211</sup>

### C. CERCLA's Strict, Joint And Several Liability Scheme Impedes Redevelopment

CERCLA holds four groups of PRPs liable for clean-up costs: (1) present owners and operators; (2) past owners and operators; (3) generators of hazardous waste who arrange for transportation, disposal, or treatment; and (4) transporters of hazardous waste.<sup>212</sup> Under

<sup>203</sup> See Cross & Segal, *supra* note 202, at 272.

<sup>204</sup> See ANALYZING SUPERFUND, *supra* note 199, at 183.

<sup>205</sup> *Id.*

<sup>206</sup> See Cross & Segal, *supra* note 202, at 272.

<sup>207</sup> *Id.*

<sup>208</sup> See Karen L. Demeo, Note, *Is CERCLA Working? An Analysis of the Settlement and Contribution Provisions*, 68 ST. JOHN'S L. REV. 493, 523 (1994); John, *supra* note 99, at 971-72.

<sup>209</sup> See Demeo, *supra* note 208, at 523.

<sup>210</sup> See *id.*

<sup>211</sup> See *id.* at 523-24; John, *supra* note 99, at 971-72.

<sup>212</sup> See Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9607(a) (1994 & Supp. III 1997).



CERCLA's strict, joint and several liability scheme, any or all of these parties can be held responsible for the entire cost of cleanup regardless of fault.<sup>213</sup> This scheme has been criticized for greatly impeding the redevelopment of the contaminated sites because it allows a subsequent purchaser of contaminated property to be held liable for the full cost of cleanup even if that purchaser was not responsible for the contamination.<sup>214</sup>

Congress attempted to deal with this criticism by passing the Innocent Landowner Defense to Liability as part of the SARA amendments in 1986.<sup>215</sup> However, this defense only applies to owners who "unknowingly acquired contaminated property . . . and who undertook all appropriate inquiry at the time of acquisition."<sup>216</sup> Accordingly, the Innocent Landowner Defense would not shield a buyer or developer purchasing property that has already been proposed or named to the NPL or is known to be contaminated.<sup>217</sup>

Recognizing the limited applicability of this defense, EPA issued a guidance in 1989 to help relieve purchasers of contaminated waste sites of liability.<sup>218</sup> This guidance allows prospective purchasers of contaminated property to enter into agreements with EPA, whereby the purchaser will undertake clean-up actions or contribute to clean-up costs in exchange for EPA issuing a covenant not to sue.<sup>219</sup> Although EPA hoped the guidance would encourage the reuse and redevelopment of contaminated sites, only a handful of these agreements have been formed.<sup>220</sup> This has been attributed to EPA's reluctance to allow a site to escape liability, thereby demanding greater clean-up efforts or cost contributions than prospective purchasers are willing to make.<sup>221</sup>

CERCLA creates yet another disincentive to the reuse and redevelopment of contaminated property through its treatment of secured creditors.<sup>222</sup> Although courts have been inconsistent concerning the

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<sup>213</sup> See *id.* § 9601(32).

<sup>214</sup> See *United States v. Stringfellow*, 661 F. Supp. 1053, 1060 (C.D. Cal. 1987); Anne Slaughter Andrew, *Brownfield Redevelopment: A State-Led Reform of Superfund Liability*, 10 NAT. RESOURCES & ENV'T 27, 28 (1996); Solo, *supra* note 190, at 293-95.

<sup>215</sup> See 42 U.S.C. § 9607(b)(3).

<sup>216</sup> THE LAW OF HAZARDOUS WASTE, *supra* note 155, at 12-104-05.

<sup>217</sup> See Andrew, *supra* note 214, at 28.

<sup>218</sup> See 54 Fed. Reg. 34,235, 34,241-42 (1989).

<sup>219</sup> See *id.*

<sup>220</sup> See Berger et al., *supra* note 143, at 87; Rubenstein, *supra* note 190, at 155.

<sup>221</sup> See Berger et al., *supra* note 143, at 87; Rubenstein, *supra* note 190, at 155.

<sup>222</sup> See Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9601(20)(A) (1994 & Supp. III 1997) (secured creditor exemption).

level of participation in the management of the property that is required for imposing liability upon the lender, it is clear that lenders can become entwined in the CERCLA liability scheme, simply as a result of financing the purchase of contaminated property.<sup>223</sup> Because of this uncertainty of potential liability, lenders are discouraged from lending money to developers of previously or potentially contaminated sites.<sup>224</sup>

#### D. CERCLA's Vague, Yet Stringent, Clean-up Standards Impede Redevelopment

Commentators have criticized CERCLA for further discouraging reuse and redevelopment of contaminated sites by leaving a great deal of uncertainty as to the standards to be applied in remedial actions.<sup>225</sup> The mechanisms by which CERCLA authorizes EPA to regulate contaminated sites are discretionary in nature and do not enumerate specific standards for remediation.<sup>226</sup> CERCLA requires a site to be cleaned to a degree that assures protection of human health and the environment, which is usually interpreted stringently to require a permanent remedy.<sup>227</sup>

Because CERCLA contemplates a permanent remedy, its remedial standards cannot be varied with the proposed use of the property.<sup>228</sup> As a result, many commentators argue that cleanups are often overdone so that property that will always be used for industrial purposes

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<sup>223</sup> See *United States v. Fleet Factors Corp.*, 901 F.2d 1550, 1557 (11th Cir. 1990) (holding that a secured creditor may incur CERCLA liability, without instituting foreclosure proceedings or being involved in the day-to-day operations of the facility, by participating in the financial management of the facility to a degree indicating a capacity to influence the corporation's treatment of hazardous wastes); *Guidice v. BFG Electroplating & Mfg. Co.*, 732 F. Supp. 556, 563 (W.D. Pa. 1989) (holding that lender purchasing mortgaged property at foreclosure sale was not eligible for protection under § 9601(20) of CERCLA); *United States v. Maryland Bank & Trust Co.*, 632 F. Supp. 573, 579 (D. Md. 1986) (holding that lender who purchased mortgaged property at foreclosure sale could not qualify for secured creditor exemption); *United States v. Mirabile*, [1995] 15 *Env'tl. L. Rep. (Env'tl. L. Inst.)* 20,994, 20,996 (E.D. Pa. Sept. 4, 1985) (prompt sale of foreclosure property barred application of CERCLA liability to lender); Rubenstein, *supra* note 190, at 156-57 (citing *Waterville Indus. v. Finance Auth. of Me.*, 984 F.2d 549, 553 (1st Cir. 1993) ("[A] maturation of ownership does not divest the owner of protection under CERCLA's security interest exception so long as the owner proceeds within a reasonable time to divest itself of ownership.")).

<sup>224</sup> See Rubenstein, *supra* note 190, at 157-58.

<sup>225</sup> See *id.* at 161.

<sup>226</sup> See generally 42 U.S.C. §§ 9604, 9606.

<sup>227</sup> See 42 U.S.C. § 9621(d); John, *supra* note 99, at 975.

<sup>228</sup> See Demeo, *supra* note 208, at 520-21; John, *supra* note 99, at 975.

is cleaned to a level that will make the property safe for a park or playground.<sup>229</sup> This needlessly increases the cost and the amount of time a cleanup will take, further stalling redevelopment of the site.<sup>230</sup>

With an abandoned site, if potential purchasers are uncertain as to the degree of cleanliness a contaminated site will be expected to achieve, they will be unable to estimate the required remediation costs, and in turn, the value of the property.<sup>231</sup> Accordingly, these sites will remain vacant and unused as the uncertainty of potential costs discourage purchasers from redeveloping the sites.<sup>232</sup>

#### IV. ALTERNATIVES TO CERCLA

##### A. RCRA

Probably the most obvious alternative to implementing cleanup under CERCLA is to proceed under RCRA. As cleanup has become more and more cumbersome under CERCLA, EPA has begun to look toward RCRA as a more efficient and cost-effective method for dealing with contaminated sites.<sup>233</sup>

The corrective action process under RCRA parallels the process established for CERCLA remedial actions.<sup>234</sup> Both processes undertake preliminary assessments and site investigations, selection of remedies needed to protect human health and the environment, remedial design and implementation of remedial action, and operation and maintenance to ensure continued effectiveness of the remedy.<sup>235</sup> The fundamental difference between the two schemes is that under RCRA, the party responsible for the contamination implements the cleanup, while under CERCLA EPA usually implements the cleanup, with the costs paid by the responsible party.<sup>236</sup>

The obvious advantage of a cleanup implemented by the responsible party under RCRA is that the party has an incentive to keep the costs to a minimum.<sup>237</sup> Since the responsible party is implementing the cleanup, it has the flexibility to decide who will conduct the cleanup

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<sup>229</sup> See Demeo, *supra* note 208, at 520-21; John, *supra* note 99, at 975.

<sup>230</sup> See John, *supra* note 99, at 973, 975; Rubenstein, *supra* note 190, at 161-62.

<sup>231</sup> See Rubenstein, *supra* note 190, at 161.

<sup>232</sup> See *id.* at 162.

<sup>233</sup> See John, *supra* note 99, at 951-52.

<sup>234</sup> See Curry et al., *supra* note 95, at 376.

<sup>235</sup> See *id.*

<sup>236</sup> See *id.*

<sup>237</sup> See Demeo, *supra* note 208, at 524; John, *supra* note 99, at 973.

and how it will proceed.<sup>238</sup> This will avoid the waste commonly associated with CERCLA cleanups that are implemented by EPA contractors who have no incentive to keep the costs down since EPA will recover the costs from the responsible party.<sup>239</sup>

Similarly, the responsible party has a monetary incentive to ensure that contractors implement the cleanup as quickly as possible to avoid paying these contractors any longer than necessary.<sup>240</sup> In addition, RCRA provides for the assessment of civil penalties for failure to obey RCRA regulations, thereby increasing the incentive to conduct timely cleanups.<sup>241</sup>

Furthermore, the RCRA scheme itself, which allows the parties to come together and determine the solutions that best correspond to the problems presented, permits the cleanup to proceed in a quicker and more efficient manner.<sup>242</sup> This ability to negotiate appropriate remedies will likely avoid the ten to twenty year black hole of CERCLA site identification, assessment, and hopefully in the end, remediation.<sup>243</sup>

In permitting EPA and the responsible party to negotiate the remediation plan to best correspond to the problems presented, RCRA avoids the inflexibility caused by CERCLA's strict, but uncertain, clean-up standards.<sup>244</sup> Because CERCLA contemplates permanent remedies, cleanups are often overdone on land that will always be put to industrial uses.<sup>245</sup> RCRA's more flexible clean-up standards allow remedial actions to proceed more quickly and inexpensively.<sup>246</sup>

Because RCRA is a federal scheme, it protects the responsible party by providing a federally-established cleanup completion, thus preventing any future federal liability.<sup>247</sup> As a result, remediation under RCRA allows greater flexibility in remedial actions without the corresponding problem of the possibility of future federal liability that accompanies remedies under a state brownfields scheme or a state voluntary clean-up program, as discussed below.<sup>248</sup>

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<sup>238</sup> See John, *supra* note 99, at 973.

<sup>239</sup> See Demeo, *supra* note 208, at 523-24.

<sup>240</sup> See *id.*; John, *supra* note 99, at 971-72, 975-76.

<sup>241</sup> See Solid Waste Disposal Act, 42 U.S.C. § 6928(c) (1994).

<sup>242</sup> See Demeo, *supra* note 208, at 520-21; John, *supra* note 99, at 972-73.

<sup>243</sup> See John, *supra* note 99, at 972-73, 975; U.S. GEN. ACCOUNTING OFFICE REPORT, *supra* note 193, at 2.

<sup>244</sup> See John, *supra* note 99, at 975; Rubenstein, *supra* note 190, at 161-62.

<sup>245</sup> See John, *supra* note 99, at 975.

<sup>246</sup> See *id.* at 973, 975; Rubenstein, *supra* note 190, at 161-62.

<sup>247</sup> See Berger et al., *supra* note 143, at 94-95; Buzbee, *supra* note 92, at 47.

<sup>248</sup> See Berger et al., *supra* note 143, at 94-95; Buzbee, *supra* note 92, at 47.

### B. *State Brownfields Legislation*

A second possible alternative to implementing a remediation plan under CERCLA would be to place the contaminated site within the workings of a brownfields legislative scheme. "Brownfield" is the term used to describe an abandoned or underutilized industrial or commercial site, likely to be located in an urban area.<sup>249</sup> Currently, many states are implementing or exploring the possibility of brownfields legislation to deal specifically with the cleanup and productive reuse of contaminated industrial sites.<sup>250</sup>

Many commentators place the blame for the brownfields phenomena on CERCLA's strict liability scheme, which imposes liability on past or present owners or operators of contaminated property, regardless of their responsibility for the contamination.<sup>251</sup> Fearing the potential indeterminate liability of the CERCLA scheme, owners abandon contaminated property and potential purchasers, who would be willing to cleanup the property in exchange for a very low purchase price, shy away.<sup>252</sup> Accordingly, millions of acres of contaminated industrial property lie vacant in urban areas where the appropriate industrial infrastructure already exists.<sup>253</sup> Instead, business and corporations develop their industrial and commercial facilities on open space in suburban and rural areas, thereby avoiding any liability that may accompany a previously used site.<sup>254</sup>

Recognizing that CERCLA has not been effective in remediating sites quickly and that productive reuse of a contaminated site will only be accomplished by allowing a business or corporation to purchase the property cheaply and then pay for the cleanup, many states have enacted brownfields legislation.<sup>255</sup> As opposed to letting a site languish within the federal CERCLA scheme and lose out on the potential tax base, job creation, and prosperity that the redeveloped site could

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<sup>249</sup> See Andrew, *supra* note 214, at 27.

<sup>250</sup> See *id.* at 28-29; Berger et al., *supra* note 143, at 89-93 (discussing New York State's Environmental Conservation Law); Leslie Goff-Sanders, *Brownfields Legislation: A Viable Option for the Southeast*, 12 J. NAT. RESOURCES & ENVTL. L. 141, 142 (1997) (discussing Florida, Georgia and Kentucky's brownfields statutes).

<sup>251</sup> See Andrew, *supra* note 214, at 27; Robert H. Abrams, *Superfund and the Evolution of Brownfields*, 21 WM. & MARY ENVTL. L. & POL'Y REV. 265, 272-73 (1997).

<sup>252</sup> See Rubenstein, *supra* note 190, at 149-50.

<sup>253</sup> See Andrew, *supra* note 214, at 27; Berger et al., *supra* note 143, at 73.

<sup>254</sup> See Berger et al., *supra* note 143, at 73; Rubenstein, *supra* note 190, at 149-50.

<sup>255</sup> See Andrew, *supra* note 214, at 28-29 (discussing responses by Midwestern states); Berger et al., *supra* note 143, at 93; Goff-Sanders, *supra* note 250, at 153-65 (discussing responses by Florida, Georgia and Kentucky).

provide, these states have decided that contaminated sites can be remediated and redeveloped much more quickly and efficiently under the control of a state scheme.<sup>256</sup> The pieces of legislation vary from state to state, but usually include provisions that require "state-approved standardized cleanup levels or methods by which such cleanup levels are derived; reduced government oversight of the cleanup process; state issuance of a certificate of completion for the cleanup; and state issuance of a covenant not to sue with regard to any contamination remaining at the site."<sup>257</sup> Many states also include provisions that offer tax credits and other financial incentives for remediation and redevelopment and that protect future "innocent landowners" and lenders.<sup>258</sup>

Again, it is important to remember that while a cleanup implemented under a state brownfields statute will absolve a party of liability under state law, it will not absolve the party of potential liability under the federal CERCLA scheme.<sup>259</sup> As such, even if a cleanup is implemented under a brownfields statute, a party may subsequently be liable under CERCLA if EPA believes that the cleanup is not in accordance with the NCP or if additional contamination is later found on the site qualifying the site for listing on the NPL.<sup>260</sup>

Despite the reluctance of EPA to get involved in the implementation of individual state brownfield programs, it has acknowledged that, to promote cleanups under state programs, it must address impediments that may exist as the result of federal environmental laws.<sup>261</sup> For example, Region V, which was one of the first EPA regional offices to organize a Brownfields Task Force, included language in the Superfund Memorandum of Agreement (MOA) with Minnesota and Illinois (two states with brownfields legislation in place) providing that sites remediated successfully under state authority will not receive further attention from EPA Region V.<sup>262</sup> These MOAs intend to encourage redevelopment by allowing prospective purchasers to better determine their federal liability for cleanup of a site.<sup>263</sup> However, the MOAs do not rise to the level of an actual covenant not to sue,

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<sup>256</sup> See Berger et al., *supra* note 143, at 72-73.

<sup>257</sup> Andrew, *supra* note 214, at 28.

<sup>258</sup> See *id.* at 29.

<sup>259</sup> See Berger et al., *supra* note 143, at 95.

<sup>260</sup> See *id.*

<sup>261</sup> See Andrew, *supra* note 214, at 30.

<sup>262</sup> See *id.*

<sup>263</sup> See *id.*

CERCLA case where EPA must remediate an abandoned site and then locate the former owners or operators for recovery, nor is it the case where many parties are responsible and EPA needs to use CERCLA's strict, joint and several liability to effect recovery.<sup>280</sup>

Proponents of CERCLA argued that since EPA had already identified the PRP and the listing process had already begun for the Pittsfield site, it would not take the estimated 9.4 years to add the site to the NPL.<sup>281</sup> However, since GE could challenge EPA's final decision to list the Pittsfield site on the NPL, it would still be a number of years, though not likely nine, before the site would officially be named to the NPL.<sup>282</sup> Furthermore, in light of the possibility of paying triple damages on a cleanup that had already been estimated between \$250 and \$500 million, GE would have had an enormous incentive to use every resource to fight the Superfund listing.<sup>283</sup>

The "litigious atmosphere" that CERCLA creates would have placed GE and EPA in an "adversarial relationship" that would have further stalled the clean-up process.<sup>284</sup> After complying with all RCRA requirements and deadlines over the last four years and spending over \$100 million, GE felt spurned by EPA and saw no reason to cooperate with the proposed Superfund listing.<sup>285</sup> This situation would have only served to hurt the residents of Pittsfield, as GE would no longer have the looming possibility of a Superfund listing as an incentive to cooperate and would instead fight every step in the CERCLA process tooth and nail.<sup>286</sup>

Although the listing process would be stalled through litigation, in theory the clean-up process under CERCLA should proceed more quickly than that under RCRA.<sup>287</sup> Because CERCLA only allows courts to review EPA's remedial decisions when EPA initiates an action to force parties to perform a remedy or to recover costs in-

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<sup>280</sup> See *id.* §§ 9606, 9607, 9612, 9613; Cruden, *supra* note 145, at 520. Since the Superfund is insufficient to finance cleanups at all sites, it must be allocated to those sites where there are no viable PRPs. See 42 U.S.C. §§ 9606, 9607, 9612, 9613; Cruden, *supra* note 145, at 520.

<sup>281</sup> See U.S. GEN. ACCOUNTING OFFICE, *supra* note 193, at 1.

<sup>282</sup> See 42 U.S.C. § 9613(a).

<sup>283</sup> See *id.* § 9607(c)(3); Cohen, *supra* note 3, at B2; *Breakthrough on PCBs*, *supra* note 128, at 1; *PCB Deal*, *supra* note 184, at 1; *GE in Pittsfield*, *supra* note 4.

<sup>284</sup> See Cross & Segal, *supra* note 202, at 272.

<sup>285</sup> See Angelo, *supra* note 8, at 44; *GE in Pittsfield*, *supra* note 4.

<sup>286</sup> See Carley, *supra* note 1, at A1; *Breakthrough on PCBs*, *supra* note 128, at 1; *PCB Deal*, *supra* note 184, at 1.

<sup>287</sup> See Curry et al., *supra* note 95, at 386.

curred, GE will not be able to appeal every remedial decision made, as it was allowed to under RCRA.<sup>288</sup>

Unfortunately, this rationale did not apply in the GE case because the RCRA corrective action permit was already in place before the Superfund listing was proposed.<sup>289</sup> As such, the appeal process under RCRA had been completed and remediation under the order had already begun.<sup>290</sup> Although an initial Superfund listing may have effected cleanup more quickly than proceeding under RCRA, at the time the Superfund listing was proposed, it would have likely taken longer to complete the cleanup of the site under CERCLA because of the incitement of a new round of litigation.<sup>291</sup>

The fact that weighed in favor of CERCLA cleanup was that many of the site assessments and investigations conducted under the RCRA scheme could be used in implementing cleanup under CERCLA, since the corrective action process under RCRA parallels the remedial action process under CERCLA.<sup>292</sup> This fact may have reduced the amount of time a CERCLA cleanup would have taken because many of the needed assessments of the GE site had already been performed under RCRA.<sup>293</sup> Even still, the average cleanup completion under CERCLA takes 10.6 years, and it is unlikely that cleanup of a contaminated site of the magnitude of the GE/Housatonic River Site would be completed in any less time.<sup>294</sup>

Although a good portion of the site assessments had already taken place and some of the litigation costs under CERCLA would have been avoided because there is only one PRP, a CERCLA cleanup in Pittsfield would still likely be more expensive than a RCRA cleanup.<sup>295</sup> As previously discussed, because GE was implementing the cleanup under RCRA, it had the incentive to keep costs to a minimum.<sup>296</sup> Accordingly, GE closely planned and monitored the cleanup to ensure

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<sup>288</sup> See 42 U.S.C §§ 6976(b), 9613(g); Curry et al., *supra* note 95, at 386; John, *supra* note 99, at 972-73.

<sup>289</sup> See 62 Fed. Reg. 50,450, 50,454 (1997); PERMIT, *supra* note 126.

<sup>290</sup> See PERMIT, *supra* note 126; GE in Pittsfield, *supra* note 4.

<sup>291</sup> See U.S. GEN. ACCOUNTING OFFICE REPORT, *supra* note 193, at 1; Cohen, *supra* note 3, at B2; *Breakthrough on PCBs*, *supra* note 128, at 1; *PCB Deal*, *supra* note 184, at 1; GE in Pittsfield, *supra* note 4.

<sup>292</sup> See Curry et al., *supra* note 95, at 376-77.

<sup>293</sup> See GE in Pittsfield, *supra* note 4. See generally PERMIT, *supra* note 126.

<sup>294</sup> See U.S. GEN. ACCOUNTING OFFICE REPORT, *supra* note 193, at 2.

<sup>295</sup> See Cross & Segal, *supra* note 202, at 271-72, 275; John, *supra* note 99, at 973.

<sup>296</sup> See John, *supra* note 99, at 973.



that the monetary waste inherent in a cleanup conducted by EPA contractors did not occur.<sup>297</sup>

Moreover, RCRA allows EPA and the PRP to negotiate the form of remediation that best corresponds to the problems presented and the projected future use of the property.<sup>298</sup> This permits the clean-up standards under RCRA to be less stringent than those statutorily mandated under CERCLA.<sup>299</sup> Under RCRA, GE could remediate the site to a level that coincided with its likely future industrial use, as opposed to a CERCLA level of cleanup that would be consistent with use as a park or school.<sup>300</sup> Because it was being implemented by GE and was being performed to a level consistent with future use, a RCRA cleanup would have likely been less expensive than a cleanup performed under CERCLA.<sup>301</sup>

In terms of encouraging the reuse and redevelopment of the GE site, RCRA seemed to provide the more attractive option. Because actual remediation was already in progress, completion of the GE site cleanup under RCRA probably would have occurred much sooner than restarting the process under CERCLA.<sup>302</sup> Furthermore, remediating the property to the level consistent with its future use, rather than a level designed to render it suitable for any purpose, would have further expedited the cleanup.<sup>303</sup> Together, these two factors likely would have ensured that the site would be available for redevelopment much sooner under RCRA than under CERCLA.<sup>304</sup>

While proceeding under RCRA, GE and the city of Pittsfield had agreed on broad redevelopment plans for the site, including plans to make portions of the site available as soon as they were remediated.<sup>305</sup> When the site was threatened by a Superfund listing, GE had taken these redevelopment plans off the table.<sup>306</sup> Although this may have been seen as GE playing politics, EPA should have anticipated this result when proposing CERCLA.<sup>307</sup>

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<sup>297</sup> See Demeo, *supra* note 208, at 523-24.

<sup>298</sup> See John, *supra* note 99, at 975.

<sup>299</sup> See Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9605(a) (1994) (outlining CERCLA cleanup standards); John, *supra* note 99, at 975.

<sup>300</sup> See John, *supra* note 99, at 975.

<sup>301</sup> See Demeo, *supra* note 208, at 523-24; John, *supra* note 99, at 975.

<sup>302</sup> See Angelo, *supra* note 8, at 44; *GE in Pittsfield*, *supra* note 4.

<sup>303</sup> See Demeo, *supra* note 208, at 520-21; John, *supra* note 99, at 975.

<sup>304</sup> See John, *supra* note 99, at 975.

<sup>305</sup> See Cohen, *supra* note 3, at B2; *GE in Pittsfield*, *supra* note 4.

<sup>306</sup> See Cross & Segal, *supra* note 202, at 272; Cohen, *supra* note 3, at B2.

<sup>307</sup> See *Breakthrough on PCBs*, *supra* note 128, at 1; Theo Stein, *New Life for GE Plant: New*

Redevelopment would have been further impeded by the mere Superfund designation itself.<sup>308</sup> Because the CERCLA scheme allows a subsequent purchaser of contaminated property to be held liable for the full cost of cleanup even if that purchaser was not responsible for the contamination, many potential purchasers of the GE site would be reluctant to possibly entangle themselves in the CERCLA liability web.<sup>309</sup> Assurances by EPA that an innocent purchaser would only be subject to liability if it further contaminated the property or disturbed previously remediated areas releasing contamination would not be enough to overcome the stigma associated with the broad liability scheme and enormity of cleanups under CERCLA.<sup>310</sup>

### B. Brownfields Remediation for Pittsfield?

At the time EPA proposed the Superfund listing, placing the GE/Housatonic River Site within a brownfield legislative scheme was not a viable option because Massachusetts did not yet have a brownfields statute.<sup>311</sup> During this time, however, a brownfields bill was moving through the state legislature at the behest of Representative Peter Larkin (D-Pittsfield).<sup>312</sup> Larkin recognized the need for this type of legislation to encourage economic redevelopment of contaminated sites in depressed industrial cities such as Pittsfield, Fall River, and Worcester.<sup>313</sup> Finally, the governor signed the brownfields bill into law on August 5, 1998.<sup>314</sup>

If the Massachusetts brownfields legislation had initially been available as a remediation option, GE would have been unwilling to con-

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*England's Largest Brownfields Project*, BERKSHIRE EAGLE, Oct. 26, 1998, at 10 [hereinafter *New Life*]; *GE in Pittsfield*, *supra* note 4.

<sup>308</sup> See Andrew, *supra* note 214, at 28; Solo, *supra* note 190, at 293-95.

<sup>309</sup> See Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9607 (1994 & Supp. III 1997); Andrew, *supra* note 214, at 28; Rubenstein, *supra* note 190, at 153; Solo, *supra* note 190, at 293-95.

<sup>310</sup> See Rubenstein, *supra* note 190, at 153-55; Solo, *supra* note 190, at 295; *Breakthrough on PCBs*, *supra* note 128, at 1; *A Chronology of the PCB Negotiations*, BERKSHIRE EAGLE, Oct. 26, 1998, at 8.

<sup>311</sup> See Tina Cassidy, *Vote Seen on 'Brownfields' Pollution Bill Measure Would Encourage Reclaiming of Tainted Sites*, BOSTON GLOBE, Feb. 11, 1998, at F1.

<sup>312</sup> See *id.*; *Larkin's Bill Set the Stage*, BERKSHIRE EAGLE, Oct. 26, 1998, at 10 [hereinafter *Larkin's Bill*].

<sup>313</sup> See Cassidy, *supra* note 311, at F1; *Larkin's Bill*, *supra* note 312, at 10.

<sup>314</sup> See Peter J. Howe, *Brownfields Bill Signed*, BOSTON GLOBE, Aug. 6, 1998, at B5 [hereinafter *Peter J. Howe, Brownfields Bill*]. The bill that ultimately passed was sponsored by the House Committee and was a composite of the various brownfields bills that had been circulating in the Massachusetts House of Representatives. See *id.*; *Larkin's Bill*, *supra* note 312, at 10. Although Larkin

duct a cleanup under this piece of state legislation because of the potential of continuing federal liability.<sup>315</sup> Until there is coordination between state and federal authorities regarding brownfields, a PRP at a contaminated site the size of the GE/Housatonic River Site would be hard pressed to conduct a cleanup solely under a state statute.<sup>316</sup> The passage of the brownfields legislation did, however, ensure that a redevelopment package could be included in the settlement between GE and EPA.<sup>317</sup>

### C. *Voluntary Clean-up Program for Pittsfield?*

As of yet, Massachusetts has not explored the potential for a voluntary clean-up program and the federal government has declined to implement a federal CAP.<sup>318</sup> Even if Massachusetts did have its own state-implemented voluntary clean-up program, GE would be ill-advised to proceed under it because of the possibility of future liability under CERCLA.<sup>319</sup> Until there is cooperation between the state and federal governments to allow a responsible party to take part in a state voluntary clean-up program without the possibility of future federal liability, it is unlikely that a state voluntary clean-up program will ever be a viable alternative for more extensively contaminated sites like the GE/Housatonic River Site in Pittsfield.<sup>320</sup>

## VI. THE NEGOTIATED SETTLEMENT

On September 24, 1998, EPA and GE entered into a precedent-setting negotiated settlement.<sup>321</sup> The settlement agreement directs GE and EPA to begin the cleanup immediately and specifies a timetable for each portion of the clean-up project.<sup>322</sup> The timetable orders that GE complete cleanup of the plant site as soon as possible to begin the

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is not listed as the author of the brownfields bill that became law, he is often credited as the driving force behind such legislation. See *Brownfields Bill*, *supra* note 314, at B5; *Larkin's Bill*, *supra* note 312, at 10.

<sup>315</sup> See Berger et al., *supra* note 143, at 95.

<sup>316</sup> See *id.*

<sup>317</sup> See U.S. ENVTL. PROTECTION AGENCY, *supra* note 29, at 8; *Larkin's Bill*, *supra* note 291, at 10.

<sup>318</sup> See Buzbee, *supra* note 92, at 38.

<sup>319</sup> See *id.*

<sup>320</sup> See Berger et al., *supra* note 143, at 95.

<sup>321</sup> See *Breakthrough on PCBs*, *supra* note 128, at 1. See generally U.S. ENVTL. PROTECTION AGENCY, *supra* note 29.

<sup>322</sup> See U.S. ENVTL. PROTECTION AGENCY, *supra* note 29, at 6, 7, 8; *PCB Deal*, *supra* note 184, at 1.

redevelopment, that cleanup of the first one-half mile of the Housatonic River be completed in one to two years, and that cleanup of the next one and one-half miles of the river begin after the completion of the first one-half mile and be completed in two to three years.<sup>323</sup>

The settlement agreement specifies that the clean-up standards for the GE Plant Site are based on the assumption that there is no current or reasonably foreseeable future use of groundwater for drinking water and that surface soils will be remediated to allow unrestricted commercial/industrial use.<sup>324</sup> This requires remediation of surface soils (zero to one foot) for PCB levels greater than twenty-five ppm on average and of deeper soils (one to six feet) if PCB levels are greater than 200 ppm on average.<sup>325</sup> For property used for recreational purposes, such as the Housatonic River Floodplain, the former oxbows areas, and the banks of Silver Lake, GE must remediate the soil to achieve average PCB levels of ten ppm in the top foot and fifteen ppm in the one to three foot interval.<sup>326</sup> For residential properties along the Housatonic River, GE must remediate soil to achieve average PCB levels of two ppm.<sup>327</sup> GE will remove and restore the Housatonic River soil to achieve average PCB levels of ten ppm in the top foot and fifteen ppm at one to three feet.<sup>328</sup>

The settlement agreement stipulates that during the remediation process, there will be a formalized dispute resolution process.<sup>329</sup> The settlement also provides for agreements between the government agencies and GE not to sue each other so long as GE is performing the work adequately, and protects GE from contribution claims.<sup>330</sup>

The settlement agreement also includes a Brownfields Redevelopment and Economic Aid package.<sup>331</sup> This provision mandates that GE clean up its plant site consistent with the agreed upon standards, demolish some of the buildings, refurbish other buildings, landscape the plant grounds, and transfer portions of the property to the PEDDA.<sup>332</sup>

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<sup>323</sup> See U.S. ENVTL. PROTECTION AGENCY, *supra* note 29, at 6, 7, 8.

<sup>324</sup> See *id.* at 2.

<sup>325</sup> See *id.* at 3.

<sup>326</sup> See *id.* at 4-5.

<sup>327</sup> See *id.* at 5. This refers only to those residential properties on the Housatonic River Floodplain. See *id.* Those residential properties which were contaminated by yard fill are not part of the settlement agreement as they will continue to be remediated on an expedited track and will remain a high priority. See *id.* at 1.

<sup>328</sup> See U.S. ENVTL. PROTECTION AGENCY, *supra* note 29, at 6.

<sup>329</sup> See *id.* at 10.

<sup>330</sup> See *id.*

<sup>331</sup> See *id.* at 8.

<sup>332</sup> See *id.*

PEDA will be a legally distinct entity from both the city of Pittsfield and the state, and will take ownership of portions of the plant site and market them to new tenants.<sup>333</sup> PEDA will then lease, and eventually sell, these portions of the redeveloped plant site to developers or tenants.<sup>334</sup> Pittsfield officials have stated that they have already received a number of inquiries from interested companies.<sup>335</sup>

The preceding provisions comprise the substance of the settlement agreement.<sup>336</sup> This agreement is considered precedent-setting because settlement is not usually considered for the remediation of sites of this magnitude in a sea of federal statutory regimes.<sup>337</sup> Notwithstanding, pursuing a settlement seems to make the most sense since it incorporates the best attributes of the various alternatives discussed above, while avoiding many of the problems associated with them.<sup>338</sup>

First and foremost, it avoids the extensive time lapses associated with proceeding under both CERCLA and RCRA.<sup>339</sup> The agreement directed GE and EPA to begin the cleanup immediately, and within days of its announcement GE contractors had started a source control project to prevent any more PCBs from flowing into the Housatonic River.<sup>340</sup> Furthermore, the remediation timetables set out in the agreement dictate that GE will complete the bulk of the cleanup of the plant site and the Housatonic River in three to five years.<sup>341</sup>

Although these timetables are ambitious, GE has an incentive to adhere to them because a swift cleanup will keep costs to a minimum.<sup>342</sup> Since GE will be implementing most of the cleanup itself, GE can keep costs low by closely monitoring the clean-up process and by proceeding as quickly as possible.<sup>343</sup> This incentive to move fast at a low cost would be lost under the CERCLA scheme because EPA would probably conduct a good portion of the cleanup and possibly

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<sup>333</sup> See *New Life*, *supra* note 307, at 10.

<sup>334</sup> See Greg Sukiennik, *City's Development Authority Prepares to Oversee GE Site*, *BERKSHIRE EAGLE*, Nov. 11, 1998, at 15.

<sup>335</sup> See *New Life*, *supra* note 307, at 15.

<sup>336</sup> See generally U.S. ENVTL. PROTECTION AGENCY, *supra* note 29.

<sup>337</sup> See Allen & Howe, *supra* note 29, at A1; *Breakthrough on PCBs*, *supra* note 128, at 1.

<sup>338</sup> See *id.*

<sup>339</sup> See U.S. GEN. ACCOUNTING OFFICE REPORT, *supra* note 193, at 2; Allen & Howe, *supra* note 29, at A1; *PCB Deal*, *supra* note 184, at 1.

<sup>340</sup> See U.S. ENVTL. PROTECTION AGENCY, *supra* note 29, at 3; *PCB Deal*, *supra* note 184, at 1.

<sup>341</sup> See U.S. ENVTL. PROTECTION AGENCY, *supra* note 29, at 6-8.

<sup>342</sup> See John, *supra* note 99, at 975.

<sup>343</sup> See *id.* at 973, 975.

bill GE for up to three times the cost.<sup>344</sup> To illustrate, EPA has stated that the site will cost more than \$250 million to remediate, while GE has proposed ambitiously that it could do the work for \$150 million.<sup>345</sup> By retaining one of the positive attributes of the RCRA scheme, allowing the PRP to conduct most of the cleanup itself, the settlement will avoid the staggering clean-up costs and a ten to twenty year lag between identification, assessment, and remediation that occurs under the CERCLA scheme.<sup>346</sup>

The settlement further avoids high costs and extensive delays by eliminating the legal wrangling that occurs under both RCRA and CERCLA. By providing for a formalized dispute resolution process and covenants not to sue, the agreement removes some of the legal options that many feel GE used to stall the RCRA process.<sup>347</sup> As such, the settlement agreement has managed to maintain the RCRA incentive for GE to proceed quickly, while eliminating some of the legal stalling tactics that many felt made the RCRA process ineffective at the GE/Housatonic River Site.<sup>348</sup>

Moreover, the settlement has avoided a proposed Superfund listing that would certainly provoke GE to wage a serious legal battle challenging everything from the legality of CERCLA to the scientific evidence behind the view that PCBs are harmful.<sup>349</sup> Such litigation would stall the clean-up process and cost EPA roughly \$10 million in legal expenses.<sup>350</sup> The settlement agreement has escaped this legal black hole while maintaining the threat of a possible Superfund listing to ensure GE's cooperation.<sup>351</sup>

Similar to RCRA or a voluntary clean-up program, the settlement agreement has allowed GE and EPA to negotiate the clean-up standards for each portion of the remediation project.<sup>352</sup> Since the parties did not have to adhere to CERCLA's inflexible and stringent clean-up

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<sup>344</sup> See Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9607(c)(3) (1994); Demeo, *supra* note 208, at 523-24; Cohen, *supra* note 3, at B2.

<sup>345</sup> See *PCB Deal*, *supra* note 184, at 1.

<sup>346</sup> See ANALYZING SUPERFUND, *supra* note 199, at 14; John, *supra* note 99, at 975; U.S. GEN. ACCOUNTING OFFICE, *supra* note 193, at 2.

<sup>347</sup> See U.S. ENVTL. PROTECTION AGENCY, *supra* note 29, at 10; Angelo, *supra* note 8, at 44; *Breakthrough on PCBs*, *supra* note 128, at 1.

<sup>348</sup> See U.S. ENVTL. PROTECTION AGENCY, *supra* note 29, at 6-8, 10; John, *supra* note 99, at 975; *Breakthrough on PCBs*, *supra* note 128, at 1.

<sup>349</sup> See *PCB Deal*, *supra* note 184, at 1.

<sup>350</sup> See *id.*

<sup>351</sup> See U.S. ENVTL. PROTECTION AGENCY, *supra* note 29, at 10; *PCB Deal*, *supra* note 184, at 1.

<sup>352</sup> See U.S. ENVTL. PROTECTION AGENCY, *supra* note 29, at 2-6; Buzbee, *supra* note 92, at 41-42.

standard, they could negotiate varied clean-up standards consistent with the use of the property.<sup>353</sup> This ensures that residential properties will be remediated to a degree that assures protection of human health, but properties that will always be put to industrial uses will not be remediated to a higher standard than necessary.<sup>354</sup> The result is a cleanup that is cheaper, quicker, and allows earlier reuse and redevelopment of the site.<sup>355</sup> Further, since the settlement agreement was among GE, state, and federal authorities, it eliminates the problem of possible continuing federal liability that accompanies voluntary cleanups.<sup>356</sup>

The settlement agreement further encourages redevelopment of the GE Plant Site through its inclusion of the Brownfields Redevelopment and Economic Aid package.<sup>357</sup> The importance of this provision cannot be underestimated for a city that desperately needs new jobs to revitalize its economy.<sup>358</sup> If the GE site had been placed under the CERCLA regime, it would not only be many years before a new company could occupy the site, but it is very likely that most companies would shy away in fear of potential liability.<sup>359</sup> Moreover, many believed that the stigma of a Superfund site would provoke the flight of Pittsfield's major employers, such as GE Plastics, General Dynamics, and K-B Toys.<sup>360</sup> The settlement avoids the problems inherent in a Superfund listing while eliminating the potential for future federal liability that accompanies a cleanup effected under a state brownfields statute.<sup>361</sup> Again, since the agreement was reached among GE, state and federal authorities, there is no possibility that a subsequent purchaser could be entangled in the CERCLA regime.<sup>362</sup>

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<sup>353</sup> See Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9621(d) (1994); John, *supra* note 99, at 975.

<sup>354</sup> See John, *supra* note 99, at 975.

<sup>355</sup> See *id.* at 973, 975.

<sup>356</sup> See U.S. ENVTL. PROTECTION AGENCY, *supra* note 29, at 1; Berger et al., *supra* note 143, at 95-96.

<sup>357</sup> See U.S. ENVTL. PROTECTION AGENCY, *supra* note 29, at 8.

<sup>358</sup> See Greg Sukiennik, *Settlement Benefits Projects Countywide, Renewed Confidence in Pittsfield's Future*, BERKSHIRE EAGLE, Oct. 26, 1998, at 19.

<sup>359</sup> See Andrew, *supra* note 214, at 28; Rubenstein, *supra* note 190, at 149-50.

<sup>360</sup> See *Breakthrough on PCBs*, *supra* note 128, at 1.

<sup>361</sup> See Andrew, *supra* note 214, at 28; Berger et al., *supra* note 143, at 95-96; Rubenstein, *supra* note 190, at 149-50.

<sup>362</sup> See U.S. ENVTL. PROTECTION AGENCY, *supra* note 29, at 1; Berger et al., *supra* note 143, at 95-96.

### CONCLUSION

The negotiated settlement agreement between EPA's Intergovernmental Team and GE is a solution that ensures that Pittsfield's environmental and economic health will be protected. Although it was a long time coming, the negotiators should be credited for thinking outside the box and creating a settlement that seems to please all interested parties. The settlement agreement has incorporated the best elements of the two federal regulatory schemes, RCRA and CERCLA, and has borrowed from alternatives to these schemes that are not yet widely used for sites of this magnitude. The agreement will ensure that GE remediates the GE/Housatonic River Site to levels that protect humans and the environment in an expeditious and cost efficient manner, and that the plant site is redeveloped to return jobs and industry to a city that desperately needs it.